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# THESIS

**NETWORK DESIGN GUIDANCE FOR THE GLOBAL SPECIAL OPERATIONS FORCES NETWORK**

by

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The current national security strategy calls for an increased reliance on relationships with diverse partners to address the challenges of the contemporary security environment. United States Special Operations Command is confronting these challenges with a Global Special Operations Forces (SOF) Network (GSN). The question is this: how should SOF develop social networks in support of the GSN?

This study employs a mixed-methods research design to create a process model of social network design to aid SOF in the development of the GSN. The model consists of five composite factors: expertise (E), sensemaking (S), connection (C), action (A) and narrative (N). These five factors are interconnected and form a process model called E-SCAN. The model is offered as a guide to assist SOF personnel in developing their social networks and building out the GSN.

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# NETWORK DESIGN GUIDANCE FOR THE GLOBAL SPECIAL OPERATIONS FORCES NETWORK

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# ABSTRACT

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# LIST OF ACRONYMS AND ABBREVIATIONS

| | |
|---|---|
| AFRICOM | Africa Command |
| BRICS | Brazil, Russia, India, China and South Africa |
| CCJO | Capstone Concept for Joint Operations |
| COIN | counterinsurgency |
| COM | commercial |
| DMA | Deputy Municipal Administrator |
| DOD | Department of Defense |
| DOS | Department of State |
| DSG | defense strategic guidance |
| E-SCAN | expertise, sensemaking, connection, action, and narrative |
| EU | European Union |
| GCC | global combatant command |
| GOV | government |
| GSN | Global Special Operations Forces Network |
| IA | interagency |
| IDP | internally displaced person |
| IGO | International governmental organization |
| JIIM | joint, interagency, intergovernmental and multi-national |
| KFOR | Kosovo Forces |
| KLA | Kosovo Liberation Army |
| KSA | knowledge skills and abilities |
| LDK | Democratic League of Kosovo |
| MA | municipal administrator |
| MIL | military |
| NATO | North Atlantic Treaty Organization |
| NCR | National Capital Region |
| NGO | nongovernmental organization |
| NIC | National Intelligence Council |
| NMS | National Military Strategy |
| NSS | National Security Strategy |

| | |
|---|---|
| O*NET | Occupational Information Network |
| OSCE | Organization for Security and Cooperation in Europe |
| QDDR | Quadrennial Diplomacy and Development Review |
| RSCC | Regional Special Operations Forces Coordination Center |
| RTI | Research Triangle Institute |
| SNA | social network analysis |
| SOCAFRICA | Special Operations Command Africa |
| SOCOM-NCR | SOCOM-National Capital Region |
| SOF | Special Operations Forces |
| SOLO | special operations liaison officers |
| SOST | special operations support teams |
| TSOC | theater special operations command |
| UN | United Nations |
| UNCA | United Nations Civil Administration |
| UNMIK | United Nations Mission In Kosovo |
| U.S. | United States |
| USDOL/ETA | U.S. Department of Labor/Employment and Training Administration |
| USG | United States government |
| USN | United States Navy |
| USSOCOM | United States Special Operations Command |
| VEO | violent extremist organization |
| WA | work activities |

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# I. INTRODUCTION

This chapter describes the complexity of the contemporary security environment to develop an understanding of the need for a collaborative response from the United States Government (USG) and its agencies. Next, how the United States Special Operations Command (USSOCOM) is confronting these challenges with a global Special Operations Forces (SOF) networked response is examined and background and justification for the development of the Global SOF Network (GSN) is provided. The question that remains is how to develop social networks in support of the GSN.

## A. CHALLENGES IN THE SECURITY ENVIRONMENT

The U.S. Defense Strategic Guidance (DSG) of 2012 defines the current global security environment as "an increasingly complex set of challenges and opportunities to which all elements of U.S. national power must be applied."[1] Additionally, the Office of the Joint Chiefs of Staff recognizes that the military is only one element of national power that must operate in concert with the rest of the USG in responding to threats in today's security environment.[2] The global security environment is shaped by two major factors that can be categorized as internal and external respectively, fiscal constraints and a convergence of threat networks in an increasingly multipolar world. Internally, the USG budget realities and fiscal constraints demand that federal agencies institute approaches that leverage "opportunities in cost effective ways"[3] to address national security challenges. Externally, the USG is facing "increasingly capable enemies in an uncertain, complex, rapidly changing and increasingly transparent world."[4]

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[1] U.S. Department of Defense, *Sustaining U.S. Global Leadership: Priorities for 21st Century Defense* (Washington, DC: GPO, 2012), http://www.defense.gov/news/Defense_Strategic_Guidance.pdf.

[2] Joint Chiefs of Staff, "Capstone Concept for Joint Operations: Joint Force 2020," *Generic* (2012): 1–24.

[3] United States Special Operations Command, *Global SOF Network White Paper: The Global Special Operations Forces Network* (MacDill Air Force Base, FL: United States Special Operations Command, 2014), 2.

[4] Ibid.

For the basis of this paper's characterization of the current global security environment, and the direction of the U.S.' national security response, a review of several principal documents discussing the topic was conducted, beginning with the U.S. National Security Strategy (NSS). The NSS describes how globalization has "empowered individuals for good and ill, and challenged state based international institutions," as well as having increased the influence of non-state actors.[5]

One of the key security challenges is the changing distribution of power at various levels across the globe, which complicates global security matters.[6] The National Intelligence Council (NIC) states that "power will shift to networks and coalitions in a multipolar world."[7] The 2011 National Military Strategy (NMS) describes this phenomenon as an "evolution to a 'multi-nodal' world characterized more by shifting, interest driven coalitions based on diplomatic, military and economic power, than by rigid security competition between opposing blocs."[8] For example, the rise of new powerful coalitions, such as Brazil, Russia, India, China and South Africa (BRICS), has begun to challenge U.S. hegemony. Major global powers will no longer be able to conduct business as usual.

Not only is power shifting between nations, it is also shifting within nations—and away from nations—with the empowerment of individuals. This trend is expected to rise dramatically in the next 30 years as the majority of the world enters into the middle class.[9] A growing middle class that is healthier, is more educated, and has better access to technology and manufacturing resources is a positive trend; however, it also increases the

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[5] Barack Obama, *National Security Strategy of the United States* (Darby, PA: Diane Publishing, 2010), 7, http://books.google.com/books?hl=en&lr=&id=cczpd0q7Z4sC&oi=fnd&pg=PA35&dq=%22Overview+of+National+Security+Strategy+.+.+.+.+.+.+.+.+.+.+.+.+.+.+.+.+.+.+.+.+.+.+.+.+.+.%22+&ots=inFXMYXkmX&sig=delCfcg4Ij4CVLfmp5GT4JrsefA.

[6] Joint Chiefs of Staff, *The National Military Strategy of the United States of America, 2011 Redefining America's Military Leadership* (Washington, DC: Joint Chiefs of Staff, 2011), 2.

[7] National Intelligence Council, *Global Trends 2030: Alternative Worlds* (Washington, DC: National Intelligence Council, 2012), ii.

[8] Joint Chiefs of Staff, *The National Military Strategy of the United States of America, 2011 Redefining America's Military Leadership*, 2.

[9] National Intelligence Council, *Global Trends 2030: Alternative Worlds*, ii.

pool of individuals with access to destructive technologies. The 2012 Joint Chiefs of Staff publication "Capstone Concept for Joint Operations: Joint Force 2020," commonly known as Joint Force 2020, characterizes the current security environment as one in which state on state conflict occurs less often, and non-state threats increases with increased access to destructive technology.[10] Empowered individuals who organize as non-state actors have the potential to strengthen the states but also have the potential to challenge the legitimacy of the state. In their most dangerous form, non-state actors can manifest in transnational threats, such as criminal and terrorist organizations. In recent history, transnational threats have "challenged state-based international institutions," as noted in the NSS.[11]

These security problems manifest at the local level as described by the RAND Corporation. They have identified 12 factors that fuel instability and serve to better describe the local environment.[12]

- The level of external support for violent extremist groups
- The extent to which the government is considered illegitimate or ineffective by the population
- The presence of tribal or ethnic indigenous populations with a history of resisting state rule and/or cultures that encourage or justify violent behavior
- The levels of poverty and inequality or the presence of one or more groups that have recently lost status or power
- The extent to which local governance is fragmented, weak, or vulnerable to replacement or co-option by non-state group institutions
- The existence of ungoverned space
- The presence of multiple violent, non-state groups competing for power

[10] Joint Chiefs of Staff, "Capstone Concept for Joint Operations: Joint Force 2020."

[11] Obama, *National Security Strategy of the United States*, 7.

[12] Thaler et al., *Improving the U.S. Military's Understanding of Unstable Environments Vulnerable to Violent Extremist Groups: Insights from Social Science—RAND_RR298* (Santa Monica, CA: RAND Corporation, 2014), 16.

- The level of government restriction on political or ideological dissent and the extent to which individuals feel alienated from the governing process
- The level of consistency and/or agreement between a violent extremist group's goal and philosophy and the preferences, worldview, and ideology of target populations
- The extent to which population and extremist groups perceive faltering government commitment to a counterinsurgency (COIN) campaign
- The capacity, resources, and expertise of violent extremist groups
- The pervasiveness of social networks capable of being galvanized and mobilized to resistant action

Overall, the documents that inform national security strategy indicate the need for a change in the strategic direction to deal with the contemporary security environment.

## B. CHOSEN STRATEGY TO DEAL WITH CHALLENGES

National security literature proposes several elements of a strategy that implies an increased reliance on relationships with diverse partners to address complex security challenges. The elements of this strategy include an emphasis on a domestic whole of government approach, as well as a strengthening of international cooperation. The literature also places value on the inclusion of the private sector throughout responding to security challenges. The elements together make for an inclusive and collaborative approach to addressing the challenges of the contemporary security environment.

A "whole of government" approach, as proposed in the 2010 NSS requires the United States (U.S.) to "update, balance, and integrate all of the tools of American power and work with our allies and partners to do the same."[13] Similarly, the Department of State's (DOS), *Leading Through Civilian Power: The First Quadrennial Diplomacy and Development Review*, commonly known as the QDDR, makes it clear that the DOS will work through the national security staff in the interagency process and that the DOS will coordinate with the Department of Defense (DOD) when a joint civil-military approach is

[13] Obama, *National Security Strategy of the United States*, 15.

necessary.[14] The DOS recognizes that contemporary security challenges are best addressed through collaboration with diverse partners and proposes, "elevating American 'civilian power' to better advance our national interests and to be a better partner to the U.S. military."[15] In keeping with this sentiment, the NMS proposes a redefinition of military leadership that can serve not only as a traditional "security guarantor," but also in a "supporting role in facilitating U.S. government agencies and other organizations' efforts to advance [national] interests."[16] Additionally, the NMS states the need for the U.S. military to foster "public-private partnerships" and to use its unique capabilities to convene and enable partner nations in accomplishing mutually beneficial security objectives.[17]

An emphasis on international cooperation is found throughout national security literature. The NSS argues taking advantage of "opportunities afforded by the world's interconnection, while responding effectively and comprehensively to its dangers."[18] This chosen strategy seeks to leverage the "unparalleled connections that America's government, private sector, and citizens have around the globe."[19] The "globally integrated operations" concept discussed in "Joint Force 2020" likewise embraces cooperation with interagency (IA) partners and international allies.[20] The concept recognizes that the U.S. Armed Forces is "only one element of national power" and that success will often center on the military's ability to "operate in concert with the rest of the U.S. government"[21] Globally integrated operations aims to improve how the Joint Force "musters decisive force" through discreet global posturing "to quickly combine

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[14] Obama, *National Security Strategy of the United States*, 134.

[15] Department of State, *The Quadrennial Diplomacy and Development Review (QDDR): Leading Through Civilian Power* (Washington, DC: Department of States, 2010), http://www.state.gov/s/dmr/qddr/.

[16] Joint Chiefs of Staff, *The National Military Strategy of the United States of America, 2011 Redefining America's Military Leadership*, 1.

[17] Ibid., 21.

[18] Obama, *National Security Strategy of the United States*, 9.

[19] Ibid.

[20] Joint Chiefs of Staff, *Capstone Concept for Joint Operations: Joint Force 2020*, 4.

[21] Ibid., 1.

capabilities with itself and mission partners across domains, echelons, geographic boundaries, and organizational affiliations."[22] The United States is not alone in this concept of the appropriate international response to the contemporary security environment. As noted in a recent North Atlantic Treaty Organization (NATO) Defense College publication, "UN, NATO and EU officials commonly speak of a comprehensive approach," which is generally considered to mean a "synchronizing [of] all the elements of national and international power" and "entail diplomatic, informational, military, and economic elements."[23]

## C. USSOCOM'S STRATEGIC RESPONSE: GSN

USSOCOM describes the strategic environment as one of persistent instability due to the increasing role of non-state actors, demographic shifts, redistribution and diffusion of global power, globalization, advance technologies, and enduring conflict.[24] The combination of these trends provides an opportunity for local security challenges to be exploited by a convergence of global threat networks.[25] These threat networks include violent extremist organizations (VEO), weapons trafficking, human trafficking, money laundering, drug trafficking, and piracy networks.[26] The global security threats that USSOCOM is most focused on addressing are those that occur in austere, high risk, or sensitive environments characterized by persistent instability.[27]

Given the wide range and complexity of these challenges, a requirement exists for "unity of effort, greater burden sharing, enhanced situational understanding and strong,

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[22] Joint Chiefs of Staff, *Capstone Concept for Joint Operations: Joint Force 2020*, 4.

[23] Research Division, *Operationalizing a Comprehensive Approach in Semi-Permissive Environments* (Rome: NATO Defense College, 2009), 7.

[24] United States Special Operations Command, *Special Operations Forces, Operating Concept* (MacDill Air Force Base, FL: United States Special Operations Command, 2013), 2.

[25] United States Special Operations Command, *SOF 2020 Global SOF Network* (MacDill Air Force Base, FL: United States Special Operations Command, 2014), 6.

[26] Ibid.

[27] United States Special Operations Command, *Global SOF Network White Paper: The Global Special Operations Forces Network*, 3.

enduring personal relationships"[28] among the USG enterprise and U.S. global partners to affect the global security environment positively. In the 2012 USSOCOM posture statement, Admiral William H. McRaven outlines his vision for a globally networked force of SOF in which the IA, host nation, and partners are able to respond rapidly to, and persistently address, regional contingencies and threats to stability.[29] Since 2012, USSOCOM has taken steps in the development of the GSN to contribute to the efforts of the USG and international partners in addressing global security threats.

USSOCOM's strategic response to deal with present security challenges is anchored by a domestic whole of government approach, a strengthening of international cooperation, and the inclusion of the private sector as appropriate. In "USSOCOM 2020, Forging the Tip of the Spear," commonly known as SOCOM 2020, the idea is advanced that to address current, complex security challenges in a resource-constrained environment properly, the United States must develop a network of IA partners, international allies, and private partners able to pool resources rapidly in applying tailored security solutions.[30] In fact, USSOCOM is already developing such a network, built upon the cornerstone of trust gained through sustained IA cooperation and joint training. This network will provide global combatant commands (GCC) with "forces organized, trained, and equipped to rapidly or persistently address regional contingencies and threats to stability,"[31] which increasingly requires cooperation in an indirect, whole of government approach.

Within the "Posture Statement of Admiral William H. McRaven, USN Commander, USSOCOM before the 113th Congress House Armed Services Committee March 6, 2013," discussion has been continued on a security response based on an

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[28] United States Special Operations Command, *Global SOF Network White Paper: The Global Special Operations Forces Network*, 2.

[29] William McRaven, *Posture Statement of Admiral William H. McRaven, USN Commander, United States Special Operations Command Before the 113th Congress House Armed Services Committee*, 113th Cong. (2013). http://docs.house.gov/meetings/AS/AS00/20130306/100394/HHRG-113-AS00-Wstate-McRavenUSNA-20130306.pdf.

[30] United States Special Operations Command, "SOCOM 2020," *Generic* (2012): i.

[31] Ibid., 1.

inclusive and collaborative network of global partners.[32] The USSOCOM 2012 Posture Statement recognizes the complexities of the current global security environment and articulates SOF inherent capabilities "to respond to this rapidly changing environment."[33] The document also acknowledges that although the direct approach[34] remains a unique capability of SOF in countering some of these challenges, "the indirect approach is the complementary element that can counter the systemic components of the threat." USSOCOM intends to use the indirect approach to "strengthen and foster a network of mutually supported partnerships that are based on shared security interest."[35] This network is being formalized in the GSN, which is defined as "a globally networked force of Special Operations Forces, Interagency, Allies and Partners able to rapidly and persistently address regional contingencies and threats to stability."[36] The goal of the GSN is to leverage better U.S. elements of national power and the capabilities of our global partners to "proactively [anticipate] threats and [enable] cooperative security solutions in cost-effective ways—both at home and abroad."[37]

The primary U.S. nodes of the GSN, most of which already exist, will include the GCC's, theater special operations commands (TSOC), regional SOF coordination centers (RSCC), special operations liaison officers (SOLO), special operations support teams (SOST), and the SOCOM-National capital region (SOCOM-NCR).[38] The RSCC is a concept formed with the creation of the NATO SOF Headquarters in Europe in 2007 to focus on the "training, education, and exchange of information" between NATO SOF.[39]

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[32] McRaven, *Posture Statement of Admiral William H. McRaven, USN Commander, United States Special Operations Command Before the 113th Congress House Armed Services Committee*.

[33] Ibid., 4.

[34] Ibid., 5. The direct approach is characterized by technologically enabled small-unit precision lethality, focused intelligence, and interagency cooperation integrated on a digitally networked battlefield.

[35] Ibid., 7. The indirect approach is defined as "long-term efforts to increase partner capabilities to generate sufficient security and rule of law and address local needs.."

[36] United States Special Operations Command, "SOCOM 2020," 2.

[37] Dave Ahearn, ed. "Q&A: Improving SOF Support to the Geographic Combatant Commands," *SOTECH* 11, no. 2 (March 2013): 18.

[38] Ibid.

[39] Ahearn, "Q&A: Improving SOF Support to the Geographic Combatant Commands," 18.

The GSN will attempt to create RSCCs as similar regional SOF headquarters around the globe "tailored to regional objectives."[40] SOLOs currently serve as in-country SOF advisors to the U.S. country team who also advise and assist with the development of partner-nation SOF.[41] SOSTs are currently serving as small USSOCOM liaison teams working within government agencies (currently at 19 locations) in the national capital region (NCR) to "facilitate better synchronization of Department of Defense planning for global operations against terrorist networks and other emerging national security concerns."[42] The USSOCOM-NCR office, begun in early 2012, seeks to "administratively consolidate" various USSOCOM personnel in the NCR to "serve as the focal point for coordination, collaboration and synchronization of global SOF operations with interagency [and international mission partners] to ensure [their] perspectives and capabilities are incorporated in all phases of SOF planning effort."[43] Additionally, the USSOCOM-NCR will contact "academia, non-governmental organizations, industry and other private sector organizations to get their perspective on complex issues affecting SOF."[44] Overall, USSOCOM-NCR is expected to enable "integrated and synchronized operational approaches to complex security challenges."[45] As Admiral McRaven stated in his 2013 posture statement, "the [Global] SOF network represents a way to improve the support to the GCCs and Chiefs of Mission and to empower a global effort with capable allies and partners,"[46] which is in keeping with the DSG and Capstone Concept for Joint Operations (CCJO) guidance.

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[40] Ahearn, "Q&A: Improving SOF Support to the Geographic Combatant Commands," 18.

[41] Ibid.

[42] Ibid.

[43] Ibid.

[44] McRaven, *Posture Statement of Admiral William H. McRaven, USN Commander, United States Special Operations Command Before the 113th Congress House Armed Services Committee,* 7.

[45] Ahearn, "Q&A: Improving SOF Support to the Geographic Combatant Commands," 18.

[46] McRaven, *Posture Statement of Admiral William H. McRaven, USN Commander, United States Special Operations Command Before the 113th Congress House Armed Services Committee,* 8.

Table 1. Key Nodes in the GSN

| Key Nodes in the GSN | | | |
|---|---|---|---|
| **Element** | **Definition** | **Purpose** | **Example** |
| Geographic Combatant Command (GCC) | A command with a broad continuing mission under a single commander and composed of significant assigned components of two or more military departments that is established and so designated by the President[47] | Provide guidance and direction through strategic estimates, command strategies, and plans and orders for the employment of military force[48] | Africa Command (AFRICOM) |
| Theater Special Operations Command (TSOC) | Subordinate unified command that provides SOF planning, preparation, and command and control[49] | Ensure SOF strategic capabilities are fully employed and synchronized with conventional military operations[50] | Special Operations Command Africa (SOCAFRICA) |
| Regional SOF Coordination Centers (RSCC) | Centers for the "training, education, and exchange of information" between regional SOF[51] | Provide tailored responses to regional objectives[52] | NATO SOF HQ |
| Special Operations Liaison Officer (SOLO) | SOF advisors to the U.S. country team[53] | Serve as in-country and assist in developing partner-nation SOF[54] | SOLOs at U.S. Embassies abroad |
| Special Operations Support Team (SOST) | "[SOF] teams who work with interagency partners in the NCR"[55] | Improve synchronization of DOD planning for global counterterrorism operations and other contingencies[56] | SOSTs at 19 USG agencies in the DC area[57] |
| Special Operations Command—National Capitol Region (SOCOM-NCR) | SOCOM offices in the National Capital Region[58] | "Serve as the focal point for coordination, collaboration and synchronization of global SOF operations with interagency [partners]."[59] | Washington Office in the Pentagon, Legislative Affairs Office[60] |

[47] United States Joint Chiefs of Staff, *Joint Publication 1-02: Department of Defense Dictionary of Military and Associated Terms*, vol. 12 (Washington, DC: Office of the Joint Chiefs of Staff, 2001), 264.

[48] United States Joint Chiefs of Staff, *Joint Publication 1: Doctrined for the Armed Forces of the United States*, vol. 12 (Washington, DC: Office of the Joint Chiefs of Staff, 2001), II–6.

[49] United States Joint Chiefs of Staff, *Joint Publication 1-02: Department of Defense Dictionary of Military and Associated Terms*, 257.

[50] Department of the Army, *Army Doctrine Reference Publication 1-02: Terms and Military Symbols* (Washington, DC: Headquarters, Department of the Army, 2013).

[51] Ahearn, "Q&A: Improving SOF Support to the Geographic Combatant Commands."

[52] Ibid.

[53] Ibid.

[54] Ibid., 18.

[55] United States Special Operations Command, *SOF 2020 Global SOF Network*, 11.

[56] Ahearn, "Q&A: Improving SOF Support to the Geographic Combatant Commands," 18.

[57] Ahearn, "Q&A: Improving SOF Support to the Geographic Combatant Commands."

[58] United States Special Operations Command, *SOF 2020 Global SOF Network*, 10.

[59] Ahearn, "Q&A: Improving SOF Support to the Geographic Combatant Commands," 18.

[60] United States Special Operations Command, *SOF 2020 Global SOF Network*, 10.

## D. CHALLENGE

What requires more examination is the matter of what conceptual framework USSOCOM should follow in developing the GSN. More specifically, how to develop social networks in support of the GSN?

## E. HISTORICAL EXAMPLE

The authors believe that it is possible to review past examples of network approaches in the accomplishment of security objectives to provide insights into the development of the GSN. A relevant historical example is the experience of the United Nations Interim Mission in Kosovo (UNMIK), which was created in 1999 as a network organization to stabilize post-conflict Kosovo. The environment in Kosovo in 1999 possessed elements that both USSOCOM and RAND have identified in the current environment as factors of persistent instability. Kosovo was a turbulent environment characterized by the effects of changes in global power that exacerbated long standing ethnic conflict between Kosovar Albanians and Serbians. Also present in the environment was an emergence of violent non-state actors, such as the Kosovo Liberation Army (KLA) and public perception of government illegitimacy due to Serbian oppression.

## F. STRUCTURE

Chapter I describes contemporary security challenges and the USG strategic response to highlight the challenge facing USSOCOM in creating a conceptual model to guide the development of social networks within the GSN. The goal of this thesis is the creation of such a model. Chapter II reviews the literature on networks to understand what networks are, how they are designed, and to establish a framework for analyzing the case studies. Chapter III examines the methodology employed in this thesis, which includes both quantitative and qualitative methods. Chapter IV analyzes network design in the two cases through the systems framework[61] and social network analysis (SNA).

[61] Nancy Roberts, "Transforming Organizational Culture Lessons Learned from a Systems Perspective," in *Military Transformation and Strategy*, by Bernard Loo (London; New York: Routledge, 2009).

Chapter V analyzes the networks in the two cases using activity analysis. Chapter VI combines the results of the analysis using the systems framework, SNA and activity analysis to develop a social network development model applicable to the GSN. The final chapter presents conclusions and recommendations for the ongoing development of the GSN.

# II. LITERATURE REVIEW

Chapter I introduced the complexity of the contemporary security environment and how USSOCOM is confronting these challenges with a global SOF networked response. This chapter reviews the literature on networks to understand what networks are, how they are designed, and to establish a framework for analyzing the case studies in Chapters IV and V.

## A. WHAT IS A NETWORK?

The current global threat environment requires a networked approach. Understandably, USSOCOM has responded to the threat by creating the GSN. USSOCOM official public documents about the GSN have focused on the characteristics of the strategic and operational environment, as well as the structures in which the GSN intends to operate. However, it has yet to describe how to develop social networks within the larger GSN. This study is intended to fill this void. After reviewing social network literature, networks as the "sustained relations between two or more nodes,"[62] be they people, groups, organizations, even nations are first defined. Another attribute of a network is its common purpose. Patti Anklam's *Net Work* defines a social network as sharing a common purpose.[63] Popp et al. also refer to networks as "working together toward a common purpose."[64] Often purpose is communicated throughout the network in a larger story called narrative. In *Networks and Netwars The Future of Terror, Crime, and Militancy*, Arquilla and Ronfeldt introduce narrative as one of the five levels of their theoretical framework to analyze networks. They define narrative as "the story being

[62] Nancy Roberts, "Network Design Continuum: Moving Beyond the Fault Lines in Social Network Theory and Research," March 1, 2013, https://cle.nps.edu/access/content/group/fde0329f-f502-4c76-9f4d-059fcd318755/Course_Documents/Roberts%20Network%20Design%20Continuum%2C%20Moving%20Beyond%20the%20Fault%20Lines.pdf, 6.

[63] Patti Anklam, *Net Work: A Practical Guide to Creating and Sustaining Networks at Work and in the World* (New York: Elsevier, 2007), Kindle edition.

[64] Popp et al., *Inter-Organizational Networks: A Review of the Literature to Inform Practice* (Washington, DC: IBM Center for the Business of Government, 2014), 18.

told,"[65] that holds the network together as it "provide[s] a grounded expression of people experiences, interest and values."[66] The narrative provides a sense of identity for the network and helps "communicate a sense of cause, purpose, and mission,"[67] which is essential for collaboration.

Social capital is an essential ingredient for collaboration within networks and is featured as a central concept in network literature. For the purpose of this study, Anklam's definition is used, "social capital is the sum of the bonds among people in a network and the behaviors that are expected, allowed, and enabled by how people meet, greet, interact with, and otherwise express their shared identity with others."[68] Social capital offers many advantages. It creates "community bonds [that] keep individuals from falling prey to extremist groups that target isolated and untethered individuals."[69] Additionally, it can help individuals to learn democratic and civic skills[70] through voluntary associations that serve as places for debate, participation in public life, trustworthiness, and reciprocity.

According to Putnam, social capital can be divided into two categories, bonding social capital and bridging social capital.[71] Bonding social capital occurs within homogeneous groups and "undergird[s] specific reciprocity and mobiliz[es] solidarity."[72] Additionally, it provides "crucial social and psychological support for less fortunate members of the community."[73] Whereas bridging social capital occurs among or between

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65 Arquilla et al., *Networks and Netwars the Future of Terror, Crime, and Militancy* (Santa Monica, CA: RAND, 2001), http://www.books24x7.com/marc.asp?bookid=11913.324.

66 Ibid., 328.

67 Ibid.

68 Anklam, *Net Work: A Practical Guide to Creating and Sustaining Networks at Work and in the World*, 1135–1136.

69 Robert D. Putnam, *Bowling Alone: The Collapse and Revival of American Community*, 1st ed. (London: Simon & Schuster, 2000), 6097, Kindle edition.

70 Ibid., 6099.

71 Ibid., 235–236.

72 Ibid., 240.

73 Ibid., 241.

groups. It is best at creating "linkages to external assets and for information diffusion."[74] Researchers have identified many positive outcomes from social capital, such as "mutual support, cooperation, trust, and institutional effectiveness."[75] They also have identified some negative consequences, such as "sectarianism, ethnocentrism, and corruption."[76] By far one of the most important consequences of social capital is its ability to create and sustain connections among people that builds their trust in one another. Their trust can be of two types, "thick trust"[77] refers to trust that results from strong and frequent personal relationships, and "thin trust"[78] refers to trust that is more general and civic in nature, such as giving the benefit of the doubt to an individual who is not known personally. Whatever the type of social capital and trust, they are recognized as important elements for the networked world."[79] Thus, trust and social capital is viewed as central features in building and developing the GSN.

## B. THE GSN AS AN INTERORGANIZATIONAL NETWORK

The GSN may be best understood as a network of organizations or an inter-organizational network, as Provan et al. refer to them.[80] A recent literature review on inter-organizational networks reveals, "the term "whole network" is sometime used to describe, "a group of three or more organizations connected in ways that facilitate achievement of a common goal."[81] Hereafter, the term inter-organizational network is used to describe networks where the nodes (actors) are organizations.

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[74] Putnam, *Bowling Alone: The Collapse and Revival of American Community*, 242.

[75] Ibid., 227.

[76] Ibid., 227–228.

[77] Ibid., 2270.

[78] Ibid., 2275.

[79] Anklam, *Net Work: A Practical Guide to Creating and Sustaining Networks at Work and in the World*, 2437–2438.

[80] Keith G., Provan, Amy Fish, and Joerg Sydow, "Interorganizational Networks at the Network Level: A Review of the Empirical Literature on Whole Networks," *Journal of Management* 33, no. 3 (June 1, 2007): 479–516, doi:10.1177/0149206307302554.

[81] Popp et al., *Inter-Organizational Networks: A Review of the Literature to Inform Practice*, 19.

The network literature on inter-organizational networks has been growing. Milward and Provan's *Manager's Guide to Choosing and Using Collaborative Networks* examines four types: service implementation networks, information diffusion networks, problem-solving networks, and community capacity building networks.[82] In *Net Work*, Anklam identifies personal, mission, business, idea, and learning networks.[83] The common factor among the different typologies is the network's purpose, and some networks, like the GSN, can serve multiple purposes.

## C. ANALYZING NETWORKS

Network literature reveals multiple lenses for analyzing networks. Four lenses are highlighted for the purposes of this thesis. The first is the systems framework lens that identifies a network's basic elements that form a whole system. The second is the network design continuum lens that enables comparison among networks across four key dimensions.[84] The third is the SNA lens that empirically illuminates the network's structure. Lastly, the activity-based analysis lens that qualitatively examines the work people are actually doing. These four lenses inform this study of networks.

### 1. Systems Framework

Networks can be analyzed using many approaches. Thinking of networks as part of a system is one lens, which aids in understanding networks and their designs. Anderson and Johnson define a system as "a group of interacting, interrelated, or interdependent components that form a complex and unified whole."[85] Furthermore, the components of a system can be physical or intangible, such as the processes and

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[82] H. Brinton Milward and Keith G. Provan, *A Manager's Guide to Choosing and Using Collaborative Networks* (Washington, DC: IBM Center for the Business of Government, 2006), 11.

[83] Anklam, *Net Work: A Practical Guide to Creating and Sustaining Networks at Work and in the World*, 485.

[84] Roberts, "Network Design Continuum: Moving Beyond the Fault Lines in Social Network Theory and Research."

[85] Virginia Anderson and Lauren Johnson, *Systems Thinking Basics: From Concepts to Causal Loops* (Cambridge, MA: Pegasus Communications, 1997), 2.

relationships that can be seen occurring within a network.[86] All systems possess several common characteristics. First, all systems have a purpose and exist within, and are interdependent of, a larger system.[87] Second, "a systems parts must all be present for the system to carry out its purpose optimally."[88] Third, "a systems parts must be arranged in a specific way for the system to carry out its purpose."[89] Finally, "systems maintain their stability thru fluctuation and adjustment" among the system parts as well as between the system and its environment in response to internal and external feedback.[90]

Understanding that networks are systems consisting of components that adjust in accordance with internal and external feedback enable an additional approach to the understanding of networks. Roberts's Systems Framework[91] is used because it makes it possible to analyze the networks in terms of the three major components: the network's environment and purpose, the network's design factors (e.g., structure, processes, activities, people, and people), and the network's results, its culture, outputs, and outcomes.[92]

The systems framework first provides a way to describe the system, which for this thesis, is a network. Within the framework, each one of the three major components of a system consists of subordinate elements (See Figure 1). The arrows connecting the components indicate interaction and "feedback loops" between the system's components.[93] The system direction describes where the system is going. The design factors and throughputs sections describe how the system functions and operates. The results section describes what the system is accomplishing or producing.

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[86] Anderson and Johnson, *Systems Thinking Basics: From Concepts to Causal Loops*, 3.

[87] Ibid., 2.

[88] Ibid., 3.

[89] Ibid.

[90] Ibid., 4.

[91] Roberts, "Transforming Organizational Culture Lessons Learned from a Systems Perspective," 179–96.

[92] Ibid.

[93] Ibid., 180.

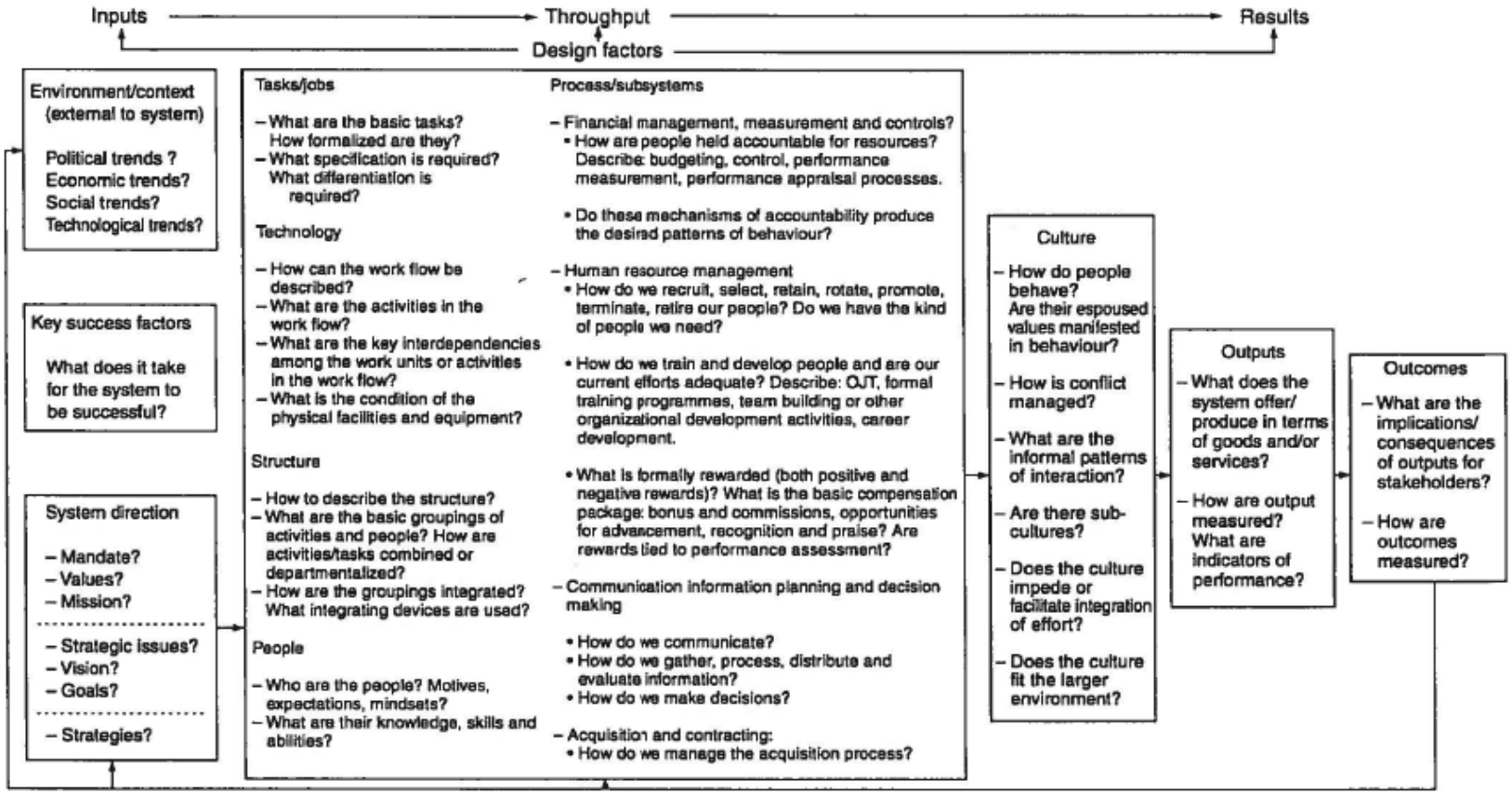


Figure 1. Systems Framework

The first step in systems analysis is to use the framework to describe how the system is currently functioning. If the system is not performing well in terms of its results, the search is on to identify what might be prompting the poor results. Is it a misfit between the system's environment and its direction? Between its direction and its design elements? Between its direction, design elements and its results? These misfits, or what some refer to as design tensions, need to be addressed and corrected. They lead to the question, what in the system needs to be changed? Most importantly, how will these changes be made and implemented? Overall, the systems framework functions as a "tool to describe and diagnose existing [system] conditions" and as "a mechanism to pinpoint where, and how, to intervene to make improvements in the [system]."[94]

### 2. Design Continuum

In 1979, Mintzberg explored organizations through a design lens.[95] His general argument is that to succeed, an organization will design itself to fit the environment in which it exists and the tasks it must perform.[96] While Mintzberg identifies five ideal types of organizations, he acknowledges that they are only ideals, and that every real organization is a mixture of each.[97] The design approach to networks is thought of in a similar manner; networks typically develop and adjust in accordance with environmental and performance demands to form particular design types.

The literature addresses network design in several ways: as a formal mode of governance,[98] as a stage in a network's evolution,[99] and as a description of how networks

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[94] Roberts, "Transforming Organizational Culture Lessons Learned from a Systems Perspective," 181.

[95] Henry Mintzberg, *The Structuring of Organizations* (Englewood Cliffs, NJ: Prentice Hall, 1979).

[96] Ibid.

[97] Ibid., 468.

[98] Milward and Provan, *A Manager's Guide to Choosing and Using Collaborative Networks*.

[99] Anklam, *Net Work: A Practical Guide to Creating and Sustaining Networks at Work and in the World*.

are created and managed.[100] In 2006, Milward and Provan viewed design primarily in terms of network governance structure. They argue that network leaders or managers must implement the right governance structure to meet the demands of its environment and tasks.[101] Provan and Lemaire discuss network design as "how a network might be constructed and maintained to be effective"[102] Anklam discusses design more in terms of a network's evolution. She acknowledges that conscious thought can shape a network, but opens up the possibility that a network can achieve this design more by discovery than deliberate actions.[103] This thesis blends the preceding perspectives in that the authors believe design is a tool for analyzing networks, whether in response to evolution or deliberate decision.

This research and analysis process is informed by Roberts's "Network Design Continuum."[104] Roberts defines network design as "a constellation of a network's elements that in combination describe the network as a whole."[105] The continuum provides a framework to describe networks in terms of their position on a continuum between "anarchic networks and organized networks." Anarchic networks reside along the left of the spectrum and their designs are characterized as being predominantly

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[100] Robin H. Lemaire and Keith G. Provan, "Core Concepts and Key Ideas for Understanding Public Sector Organizational Networks: Using Research to Inform Scholarship and Practice," *Public Administration Review* 72, no. 5 (2012): 638–48. doi:http://dx.doi.org.libproxy.nps.edu/10.1111/j.1540-6210.2012.02595.x.

[101] Milward and Provan, *A Manager's Guide to Choosing and Using Collaborative Networks*, 22.

[102] Lemaire and Provan, "Core Concepts and Key Ideas for Understanding Public Sector Organizational Networks: Using Research to Inform Scholarship and Practice," 642.

[103] Anklam, *Net Work: A Practical Guide to Creating and Sustaining Networks at Work and in the World*, 1456.

[104] Roberts, "Network Design Continuum: Moving Beyond the Fault Lines in Social Network Theory and Research"; Anklam, *Net Work: A Practical Guide to Creating and Sustaining Networks at Work and in the World*, 704. Anklam presents an alternative that takes a similar approach but describes a continuum between formal and informal network governance (leadership) in terms of stages of coherence: emergence and connect, identify and collaborate, organize and formalize, codify, and evolve and sustain. Through these terms, she describes how a collaborative network moves from one end of the continuum to the other, whether by design or chance. On Anklam's continuum a network's location in time "is not an end state, but an expression of increasing levels of coherence" in a linear, uni-directional orientation. The authors prefer Roberts's model to describe a network's state in time as it adapts in either direction along the continuum in response to its environment and task.

[105] Nancy C. Roberts, "Network Design: A Conceptual Presentation" (presentation, Naval Postgraduate School, Monterey, CA, February 2, 2014).

unbounded, informal, heterarchical, with shared governance. Organized networks reside along the right side of the spectrum and are characterized as being predominantly bounded, formal, hierarchical with centralized governance. Thus, to date, four dimensions have been identified to differentiate among network designs: the level of unboundedness to boundedness, informality to formality, heterarchy to hierarchy, and shared to centralized governance.[106] These design concepts provide terms of reference for comparing the case study networks that follow.

### 3. Social Network Analysis

SNA also can reveal insights into the structure of a network and its potential position along the design continuum. SNA is "a collection of theories and methods that assumes that the behavior of actors is profoundly affected by their ties to others and the networks in which they are embedded."[107] SNA is informed by the following assumptions, "actors and their related actions are interdependent with other actors; ties between actors are conduits for the transfer or flow of various types of material and/or nonmaterial goods or resources; social structures are seen in terms of enduring patterns of ties between actors (i.e., social networks); repeated interactions between actors give rise to social formations that take on a life of their own; an actor's position in the social structure impacts its beliefs, norms and observed behavior; and that social networks are dynamic."[108]

Structural metrics makes it possible to see empirical evidence of the relationships between the three major components of the systems framework. For example, in *Disrupting Dark Networks*, Sean Everton labels the level of cohesion continuum "hierarchical-heterarchial" and asserts that "networks that are too hierarchical or too heterarchial tend to underperform those that lie between the two extremes."[109] Chapter V

[106] Roberts, "Network Design Continuum: Moving Beyond the Fault Lines in Social Network Theory and Research."

[107] Sean F. Everton, *Disrupting Dark Networks* (Cambridge: Cambridge University Press, 2012), Kindle edition, 758.

[108] Everton, *Disrupting Dark Networks*, 954.

[109] Ibid., 3278.

of his book describes several metrics (which are more fully described in Chapter III) to assist the analysts in locating a network on the hierarchical-heterarchial continuum.

A network's structure also can provide insights into the likely interactions occurring not captured on the design continuum. One useful metric is the network's density. In SNA terms, how a network (or sub-network) interacts with the outside world (or within itself) can be placed on a continuum between provincial (dense) and cosmopolitan (sparse). *Disrupting Dark Networks* complements the design literature by pointing out that, "research suggests that [light] networks that are too provincial or too cosmopolitan tend to perform more poorly."[110] Social network analysts can apply several metrics (see methodology) to describe a network's place on this continuum.

One limitation of SNA is that it cannot definitively describe the nature of the interactions and relationships in a network; its focus is predominantly structural. Other approaches that employ anthropological and ethnographic methods are needed to "understand behaviours."[111] This type of research tends to be "longitudinal, comparative, cross disciplinary, and often combines qualitative and quantitative techniques."[112] An additional approach to explore network relationships is in terms of activities, a subject that we next address.

### 4. Network Activities

Analyzing networks in terms of the work activities and actor attributes, which is termed activity analysis, allows comparison among networks based on what the actors are actually doing. Milward and Provan examine network activities from a managerial perspective and provide guidance for managers of inter-organizational networks.[113] Anklam's view is based less on tasks performed exclusively by managers, and more on

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[110] Everton, *Disrupting Dark Networks*.

[111] Popp et al., *Inter-Organizational Networks: A Review of the Literature to Inform Practice*, 90.

[112] Ibid.

[113] Milward and Provan, *A Manager's Guide to Choosing and Using Collaborative Networks*.

general roles needed in network governance,[114] including the roles of leaders, sponsors, steering groups, core members, and peripheral members.[115] The authors are interested in examining network activities on the whole, whether conducted as a manager or as a member in an inter-organizational network, and thus, sample from both perspectives.

A 2011 RAND study used such a broad perspective in assessing the activities executed in the joint, interagency, intergovernmental and multi-national (JIIM) environment, which represents the core of the network of partners addressing contemporary security challenges.[116] It used a systematic, non-traditional, qualitative approach to look at what knowledge, skills, and abilities (KSA) were beneficial for serving in the JIIM environment. The RAND study inspired this research team to analyze networks through a qualitative approach that considered work activities[117] WA and KSA[118] as factors in network development. The definitions chosen for WA and KSA were taken from the occupational information network (O*NET),[119] sponsored by the U.S. Department of Labor/Employment and Training Administration (USDOL/ETA),[120] due to their broad applicability across various career fields encountered in diverse networks. As detailed in the next chapter, an assessment of WA and KSA offers additional insights not afforded by structural analysis alone.

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[114] Anklam, *Net Work: A Practical Guide to Creating and Sustaining Networks at Work and in the World*, 704. Anklam defines governance as "the fine art and delicate practice of guiding and steering an organization [or network] in a steady operational state."

[115] Anklam, *Net Work: A Practical Guide to Creating and Sustaining Networks at Work and in the World*.

[116] M. Wade Markel et al., *Developing U.S. Army Officers' Capabilities for Joint, Interagency, Intergovernmental, and Multinational Environments* (Santa Monica, CA: RAND Corporation, 2011).

[117] "About O*Net," accessed March 12, 2014, http://www.onetcenter.org/overview.html?p=2. O*NET defines work activities as "general types of job behaviors occurring on multiple jobs."

[118] Ibid. O*NET defines knowledge as "organized sets of principles and facts applying in general domains." Skills are defined as "developed capacities that facilitate learning or the more rapid acquisition of knowledge." Abilities as "enduring attributes of the individual that influence performance."

[119] Ibid. O*NET is considered to be "the nation's primary source of occupational information" and catalogues occupations based on "hundreds of standardized and occupation-specific descriptors."

[120] O*NET makes use of the Bureau of Labor Statistics (BLS) 2010 Standard Occupational Classification (SOC) system "used by federal statistical agencies to classify workers into occupational categories for the purpose of collecting, calculating, or disseminating data." "Standard Occupational Classification (SOC) System," accessed March 12, 2014, http://www.bls.gov/soc/.

## D. SUMMARY

This chapter reviewed the key aspects of the social network literature and identified key elements that frame this analysis. First, it was determined that the GSN is closest to an inter-organizational network as described in the social network literature. Second, it was concluded that networks could be designed to fit their environment and purpose as discussed in the concept of network design. Third, it was found that different methods for analyzing networks and chose to include both structural analysis (SNA) and qualitative analysis (systems framework, design continuum and activity analysis). A more in-depth description of the methodology is presented in Chapter III.

# III. METHODOLOGY

Chapter II reviewed the literature on networks to understand what networks are, how they are designed, and for establishing a framework for analyzing these case studies. This chapter describes the methodology employed in this thesis, which includes both quantitative and qualitative methods.

## A. OVERVIEW

The purpose of this study was to create a model of social network development that might aid SOF in the development of the GSN. In doing so, the authors undertook a mixed-methods research design that included the following steps. First, two comparable cases were selected in which organizations sought to develop social networks to accomplish stability objectives in environmental conditions similar to those in which SOF often operate. The design of the social networks in each case through the lenses of the systems framework and through SNA was then examined. Using insights from the systems framework and SNA, each network on the Network Design Continuum was positioned to explore each network's design and general orientation given its purpose and environment. Activity analysis followed that made it possible to explore not only network actor activities and attributes, but eventually, to build a process model of network development. Table 2 summarizes the major methodological steps in the research design.

Table 2. Methodological Steps

| **Methodological Steps** | |
|---|---|
| 1. Case Selection | Selection of cases comparable to the GSN environment and purpose |
| 2. Case Comparison: Systems Framework | Qualitative examination of each case's inter-organizational networks and comparison between cases |
| 3. Case Comparison: Network Structure and Social Network Analysis | Quantitative examination of each cases inter-organizational networks and comparison between cases |
| 3a. Data Coding and Network Modeling | Structuring data to create a virtual model of a network |
| 3b. Data Analysis | Empirical examination of each network's structure |

| Methodological Steps | |
|---|---|
| 4. Case Comparison: Design Continuum | Comparison of networks in terms of four dimensions of a design continuum |
| 5. Case Comparison: Activity Analysis | Qualitatively analyzing networks in terms of the work activities and actor attributes and comparing them between cases |
| 5a. Data Coding | Structuring data into categories and concepts which help explain observed phenomena |
| 5b. Cross-Case Analysis | Examination of differences between two cases to identify which might contribute to case results |
| 6. Theory Building | A methodological process by which data is interpreted qualitatively and quantitatively to build theory |
| 6a. Concepts Emerge | Ongoing interpretation of data resulting in the identification of concepts that enable discussion and understanding of observed phenomena |
| 6b. Model Development | Compilation of Systems Framework, SNA, and Activity Analysis to create a process model of social network development to support the GSN |

### 1. Case Selection

This research team used "paired method of difference"[121] in the approach to case selection. This method requires similar cases with stark differences in outcomes, which allows the analyst to identify other cross-case differences that may have contributed to the differing outcome.[122] In this research this meant selecting two cases with similar backgrounds that diverged in network design, network collaboration, and accomplishment of security objectives. Cases embedded within environments similar to the GSN and those that had in-depth descriptions of actors' activities were also needed. While a number of cases were comparable to the GSN environment, only the cases drawn from Anne Holohan's *Networks of Democracy* offered detailed descriptions of actor relationships and activities, which led to starkly contrasting results in network development. The cases described two United Nations Civil Administration (UNCA) organizations working in adjacent, similar municipalities—Banshik and Thezren—in the

[121] Stephen Van Evera, *Guide to Methods for Students of Political Science* (Ithaca, NY: Cornell University Press, 1997), 23.

[122] Ibid.

late 90s/early 2000 post-conflict Kosovo.[123] These two cases were ideal for this study because they detailed attempts by two organizations to build inter-organizational networks to meet the security and development challenges, a similar situation facing U.S. SOF conducting operations in "semi-permissive environments"[124] around the globe. Using a mixed-methods design with multiple qualitative and quantitative techniques applied "within a single study,"[125] the authors searched for cross-case differences between the two cases.[126]

### 2. Case Analysis: Systems Framework

First, each case was analyzed—Banshik and Thezren—in accordance with Roberts's systems framework.[127] The framework examines three major components in a network: inputs (environment and purpose), throughputs (design elements, e.g., people, structure, processes, tasks and technology of work), and results (culture, outputs, and outcomes). First, all the components of the systems framework were described, and the strengths and weaknesses of each UNCA organization and its network partners identified. Finding poorer results in Thezren's network compared to Banshik's, particular design elements were identified the authors believed accounted for the differences in network performance.

### 3. Case Analysis: Social Network Analysis

The authors then turned to SNA to explore key structural cross-case differences that they believed accounted for differences in network performance. Their analysis and

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[123] Ann Holohan, *Networks of Democracy: Lessons from Kosovo for Afghanistan, Iraq, and Beyond* (Stanford, CA: Stanford University Press, 2005). Holohan uses fictional names for municipalities and for individuals.

[124] Research Division, *Operationalizing a Comprehensive Approach in Semi-Permissive Environments*, 13. The NATO Defense College defines semi-permissive environments as those "where there is a risk to military units and supporting civilian elements or organizations, but it falls short of full combat."

[125] Thomas W. Lee, *Using Qualitative Methods in Organizational Research* (Newbury Park, CA: Sage, 1999), 14.

[126] Van Evera, *Guide to Methods for Students of Political Science*, 23.

[127] Roberts, "Transforming Organizational Culture Lessons Learned from a Systems Perspective," 182.

empirical results identified structural differences between the two network cases—primarily, the ability to create collaborative networks—were central in producing differences in network performance and the achievement of security and development objectives.

### *a. Data Coding and Network Modeling*

To compare and contrast the structure of the inter-organizational networks in Banshik and Thezren, the authors first had to model the networks virtually in ORA,[128] a SNA software package. Virtually modeling the two inter-organizational networks first required that actor and relational data be coded from the *Networks of Democracy* text. Once coded, the relational data was examined at various levels. The actor level examined social and official ties among all actors listed in the text. Next, a network of ties between people and organizations was created and aggregated. Lastly, the Banshik and Thezren networks were bounded to compare and contrast the two networks at both the social actor and organizational levels. Additional details for each of these phases follow.

First, relationships reported in Anne Holohan's *Networks of Democracy* were captured by recording mentions of interactions between people and people, or organizations and organizations in ORA's matrix editor to create one-mode networks. People and organizations are referred to as actors in this SNA. While coding, a nominalist approach to bounding the networks was followed. A nominalist approach means that the observer or analyst chose which actors belong in the network, as opposed to the realist approach in which actors are asked to explain the network to which they belong.

*Networks of Democracy* described two types of actors, those who were various personnel within the network boundaries, and organizations in which actors worked or with whom they collaborated. Using the nominalist approach, the limitations of information coded in the network were based on what Holohan provides in the book; e.g., some actors were only known by their duty or social positions. Each actor was assigned a code for location of Banshik, Thezren, or other. Other variables included gender, and

[128] Carley, *ORA* (version 2.3.6) (Pittsburg, PA: Carnegie Mellon University, 2011).

job/professional association, for example: included IGO (intergovernmental organization), NGO (nongovernmental organization), MIL (military), GOV (local government). Nationality was coded as follows: 0. unknown, 1. local national, 2. foreign national (aka "internationals"). An actor's level in the hierarchy was also coded: 1. low, 2. mid, 3. high. Organizations were also coded: NGO, IGO, GOV, MIL, COM (commercial), civil defense, ethnic group, and political party. Initial coding consisted of coding these actors into one-mode networks.

The authors acknowledge that many actors are missing from the story; however, they operated under the assumption that the observed interactions nonetheless revealed general trends in the social space. Complete attribute data was not available for every actor mentioned. However, the authors include anyone with a role identified, either though description of the interaction or title in the book. They also attempted to keep assumptions to a minimum; i.e., unless an attribute was specifically mentioned, it was coded as unknown. An exception was that actors employed by the UNCA were coded as internationals rather than local nationals unless they were explicitly identified as the latter.

A one-mode network "consists of a single set of actors."[129] The resulting matrix of a one-mode network is square in shape, with the same actors on the horizontal and vertical axis. See Figure 2. The numbers at intersections represent whether a relationship exists between those two actors. In this analysis, one is used to represent a connection and zero to represent the absence of a connection between two actors. The following one-mode relations were also coded in *Networks of Democracy*: actor-actor collaboration (which actors collaborated with one another), social ties (which actors maintained social ties with one another), organization-organization collaboration (which organizations collaborated with one another), and organization hierarchy (which organizations worked for, or reported to other organizations).

[129] Everton, *Disrupting Dark Networks*, 8475.

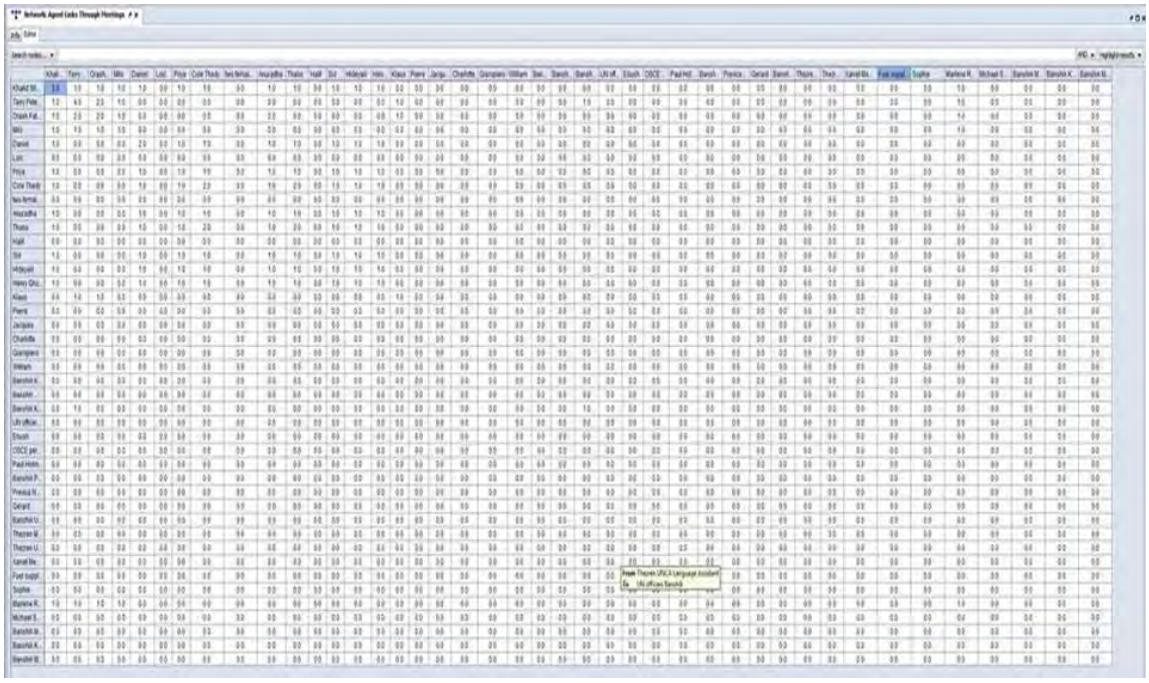

Figure 2. One Mode Network Matrix

While capturing relationships between actors, relationships between actors and events were also recorded to create two-mode networks. Two-mode networks depict relationships between "one set of actors and one set of events."[130] The resulting matrix of a two-mode network can be rectangular because the axes are not the same set of nodes, and may not have the same number. See Figure 3. Numerical representation is the same as in the authors' one-mode networks. The relevant events coded in *Networks of Democracy* were divided into three types: meeting (coordination meeting), social event (dinner, party), and critical event (collaborative event to solve a particular problem). These events provided the settings for the two-mode relations actor-meeting attend (which actors attended which coordination meetings), organization-meeting (which organizations attended which coordination meetings, organization-critical event (which organizations participated in particular problem-solving events), and actor-social event (which actors attended which social events). Other two-mode relations included actor-

[130] Everton, *Disrupting Dark Networks*, 8511.

organization collaboration (which actors collaborated with which organizations), and actor-organization employment (which actors worked for which organizations).

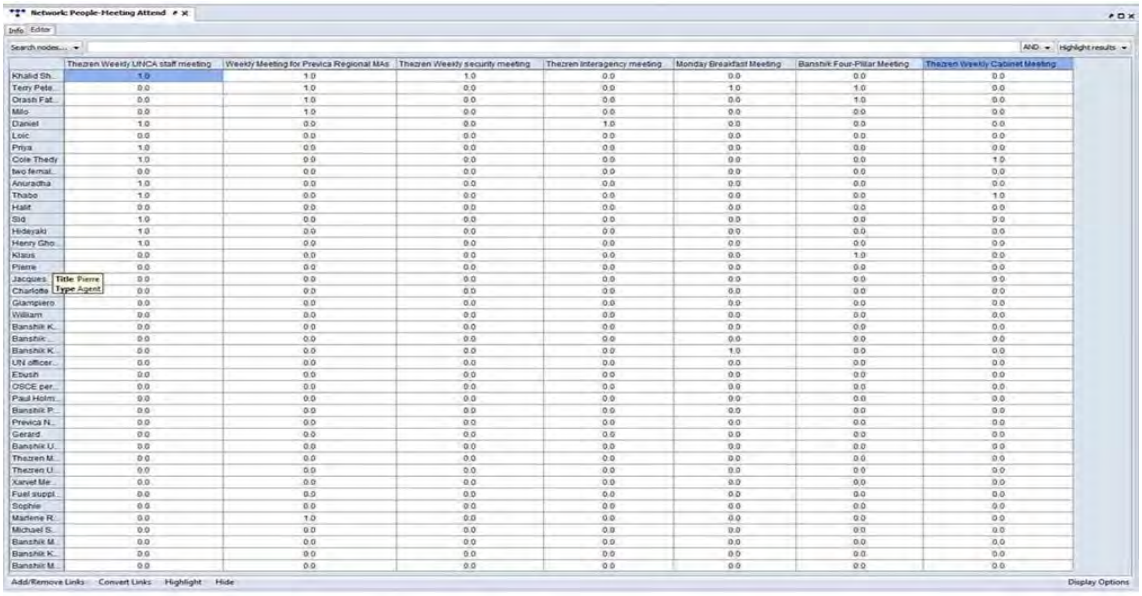


Figure 3. Two Mode Network Matrix

Next, the networks were aggregated to prepare for analysis. First, two-mode networks were converted to one-mode networks, a process known as folding. To do this conversion, it was assumed that actors who attended the same events maintained connections with each other. For instance, the actor-to-meeting network was folded to create an actor-to-actor network (see Figure 4[131]), where all actors who attend the events were tied to each other. Once one-mode networks were created from all three of the two-mode networks, all the one-mode networks were added together to create the aggregated network. The aggregated network depicts all relationships throughout the case studies. It contains 41 actors who belong to 41 organizations and 11 events. Following analysis of the aggregated network, the networks were separated by imposing new boundaries to compare and contrast them. The networks were separated by their location attribute to create the Banshik and Thezren networks.

131 Carley, *ORA.*

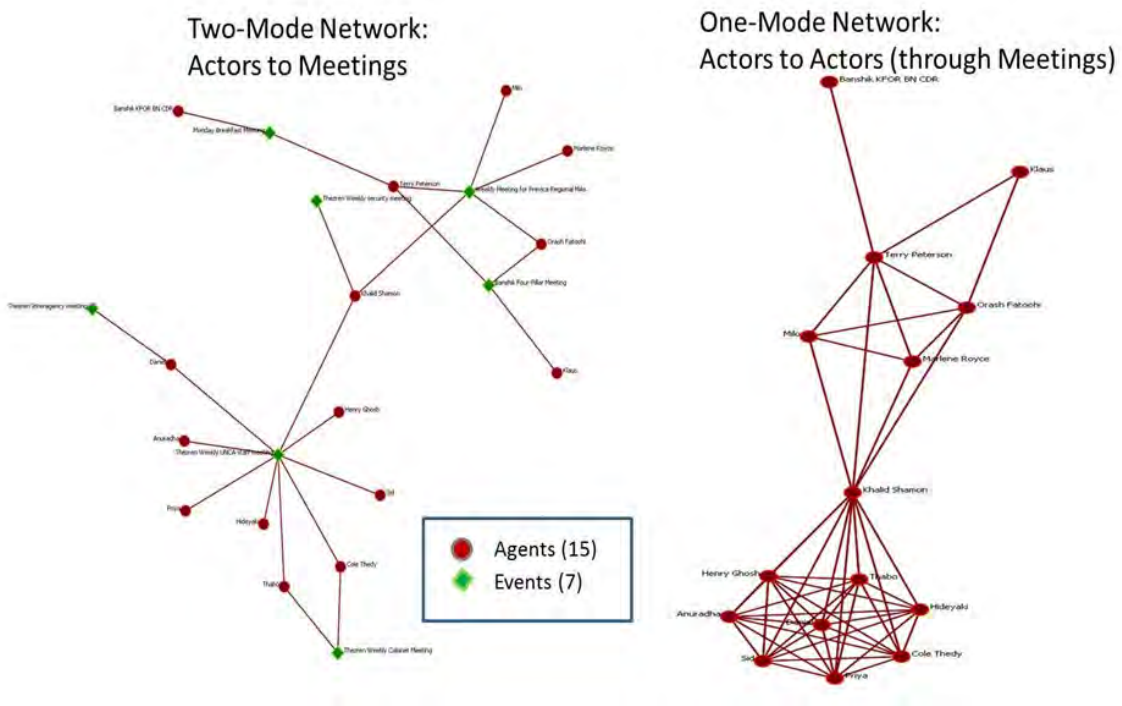


Figure 4. Actor to Event Folding

### *b. Data Analysis*

SNA metrics act as a tool in demonstrating the differences in each network's design that could have influenced the difference performance results. The first network metric examined is centrality. Centrality measures the social power of an actor based on location in the social space; i.e., the author knows many other actors (degree centrality), must go through less people to reach others in the network (closeness centrality), lies in the shortest paths between other actors (betweeness centrality), or has ties to other actors who in turn have many ties (eigenvector centrality).[132] Centralization compares the above metrics of each actor with those of other actors. The more that the actors vary from one other, the more centralized a network is. The idea is that the network's actors are not equal in social power; therefore, the network is more hierarchical. On the opposite end of the spectrum, if all the actors are equal, no one holds elevated status. Comparison of

[132] Everton, *Disrupting Dark Networks*, 8391.

network centralization metrics can provide useful information about a network's governance style and its location on the continuum.

A network's structure can also reveal its level of isolation from or integration with its environment. How a network (or sub-network) interacts with the outside world (or within itself) can be placed on a continuum between provincial (dense) and cosmopolitan (sparse). A provincial network implies that actors within the network interact mostly with each other; these ties are considered strong ties. On the other hand, a cosmopolitan network implies that actors within the network maintain ties that reach outside their immediate network; i.e., they maintain ties with actors whom may not maintain ties with the same actors; these ties are considered weak ties. Both strong and weak ties are important to the function of a given network. As such, the right balance between these ties lies on a continuum. As pointed out in *Disrupting Dark Networks*, "research suggests that [light] networks that are too provincial or too cosmopolitan tend to perform more poorly."[133] The idea is that strong ties are safer and promote trust while weak ties enable outside information or resources to enter the network. Social network analysts can apply several metrics to describe a network's place on this continuum.

One metric that can describe a network as provincial or cosmopolitan is density, which measures the ratio between the number of ties between actors in a network and the number of potential ties.[134] The more actual ties to potential ties that exist, the denser the network. A dense network implies that it is more provincial, whereas a sparse network implies that it is more cosmopolitan. It is important to note that when comparing networks of different sizes, average degree metrics may be more appropriate since "Average degree is simply the average number of ties that each actor in a network has."135

Clustering metrics can also identify patterns of interaction within a network. These algorithms identify potential subgroups within a network. The most common is the

[133] Everton, *Disrupting Dark Networks*, 3278.

[134] Ibid., 8415.

[135] Ibid., 3491.

clustering coefficient, which "measures the likelihood that two actors who share a tie with a third actor share a tie between themselves."[136] Repetition of this process enables the analysts to identify groups within the network where actors, on average, are more connected to one another than the rest of the network. A network divided into strong clusters can indicate a level of provincial disposition within parts of the network.

Measures of an individual's relationships can also reveal patterns within a network's structure. Social network analysts can use centrality metrics to describe a leader's position in social space. Levels of centrality in the social space could describe a leader's activities, as well as provide insight into a leader's attributes or attitudes. Four basic metrics for centrality could identify different aspects of the leader's abilities or actions. Degree centrality is a simple measure of how many ties the leader maintains; a high degree centrality could indicate that a leader is either very involved with the network's activities, has a collaborative attitude, or both. Betweenness centrality measures an actor's position in the social space as it relates to being between other actors; a high betweenness centrality score could suggest that the leader connects other actors in the network, or that resources and information flow through him. Closeness centrality measures how close an actor is to other actors in the network in terms of how many people are between him and the others; a high closeness centrality could mean that a leader is more central to the network and well connected to the other actors. In a "light" as opposed to a "dark" network, high closeness centrality could be an indicator that the leader knows his network and the people in it, and therefore, is in a better position to reach others in the network. Eigenvector centrality is degree centrality weighted by the degree centrality of each actor to which the original leader has ties.

In addition to using SNA tools, each UNCA leader's potential was also compared to influence the rest of his respective network using ORA's micro simulation tool.[137] ORA's micro simulation tool enables the user to simulate types of flows through a network. Using ORA, a simulation of the diffusion of an ideology was conducted starting

[136] Everton, *Disrupting Dark Networks*, 8403.

[137] Carley, *ORA.*

with Khalid Shamon (leader) in the Thezren aggregated network and with Terry Peterson (leader) in the Banshik aggregated network. ORA allows the user to set rules for resistance of transmission within simulation, which is set at an arbitrary resistance level of 0.3 based on the assumption that a 30% chance of members accepting a leader's ideology is reasonable. While the authors could try to argue subjectively that one may be more successful in overcoming resistance than the other, the small size of these networks renders the point irrelevant. ORA additionally allows the user to select time periods, which the authors also set arbitrarily because their source data is not longitudinal, and therefore, does not impact real time periods.

The simulation runs algorithms based on the assumptions that a node is more likely to adopt an ideology if it has many neighbors transmitting the idea, and that a node is more likely to reject or ignore an ideology if the node has fewer neighbors transmitting the ideology.[138] During each simulation, snapshots of each time period were taken to compare and contrast results of diffusion throughout each network. Analyzing the results of this simulation provides insight into the significance of each leader's position in the social space of their respective networks.

Overall, SNA was able to depict a structural overview of the social network ties but it was not able to put these social network metrics into a broader framework. Next, the authors turned to the design continuum that makes it possible to compare and contrast networks based on their general characteristics.

[138] Carley et al., *ORA User's Guide 2013* (Pittsburg, PA: Center of the Computational Analysis of Social and Organization Systems (CASOS), Carnegie Mellon University, 2013), 412.

### 4. Design Continuum

The Roberts' network design continuum makes it possible to compare and contrast the Banshik and Thezren networks.[139] Building on insights from the systems framework and SNA, the networks are described in terms of their position on the continuum between "anarchic networks and organized networks" based on four dimensions: "the level of unboundedness to boundedness, informality to formality, heterarchy to hierarchy, and shared to centralized governance."[140] These terms are used to identify how appropriately these dimensions fit between network purpose and results in each network, and how they account for differences in network performance.

### 5. Activity Analysis

The multi-method approach consisted of one more step to understand inter-organizational networks. The authors turned to Strauss and Corbin's *Basics of Qualitative Research* to help identify other factors that may have contributed to the differences between Banshik and Thezren inter-organizational network performance. Their qualitative approach "begin[s] with small units of data (incidents) and gradually construct[s] a system of categories or concepts that describe the phenomena being observed." These categories are then, "gradually elaborated and refined as specific incidents are examined, coded, and compared." Finally, "analysis concludes with the identification of a small number of core categories that serve to integrate the theoretical concepts that are firmly rooted or 'grounded' in the data."

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[139] Roberts, "Network Design Continuum: Moving Beyond the Fault Lines in Social Network Theory and Research"; Anklam, *Net Work: A Practical Guide to Creating and Sustaining Networks at Work and in the World*, 704. Anklam presents a similar approach but describes a continuum between formal and informal network governance (leadership) in terms of stages of coherence: emergence and connect, identify and collaborate, organize and formalize, codify, and evolve and sustain. Through these terms, she describes how a collaborative network moves from one end of the continuum to the other, whether by design or chance. On Anklam's continuum, a network's location in time "is not an end state, but an expression of increasing levels of coherence" in a linear, uni-directional orientation. The authors prefer Roberts's model to describe a network's state in time as it adapts in either direction along the continuum in response to its environment and task.

[140] Roberts, "Network Design Continuum: Moving Beyond the Fault Lines in Social Network Theory and Research," 1.

In conducting activity analysis, the team followed the guidance in Juliet Corbin in *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory* when she stated, "no researcher should become so obsessed with following a set of coding procedures that the fluid and dynamic nature of qualitative analysis is lost. The analytic process, like any thinking process, should be relaxed, flexible, and driven by insight gained through interaction with data rather than being overly structured and based only on procedures."[141]

### *a. Data Coding*

Data coding is referred to as "the action by which data are broken down, conceptualized, and put back together in new ways" and "is the central process by which theories are built from data."[142] In coding, observations about the data are first given conceptual labels, akin to topic bins, which are then further grouped into categories, or classifications of concepts that share a commonality.[143] These categories of concepts "are a higher order, more abstract concept" and are "discovered when concepts are compared against one another and appear to pertain to a similar phenomenon."[144] To conduct this type of analysis, the study team met regularly as an "analytic unit" and conducted "analytic sessions" during which coded passages of *Networks of Democracy* were finalized and observational memos were discussed to ensure members were "[remaining] firmly within the same conceptual framework."[145]

The research team followed axial coding methods, which involves first proposing coding categories and then assigning observed instances from the data to these categories.[146] The authors first decided upon an initial coding scheme composed of

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[141] Corbin et al., *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*, 3rd ed. (Newbury Park, CA: Sage Publications, 2008), http://catdir.loc.gov/catdir/toc/ecip0725/2007034189.html.12.

[142] Anselm Strauss and Juliet Corbin, *Basics of Qualitative Research: Grounded Theory Procedures and Techniques* (Newbury Park, CA: SAGE Publications, Inc., 1990).

[143] Ibid.

[144] Ibid.

[145] Ibid.

[146] Lee, *Using Qualitative Methods in Organizational Research*, 48.

coding categories selected from the O*NET due its robustness as a database of elements, with standardized definitions, required for the conduct of numerous occupations.[147]

For use as the coding categories, the study team decided upon the O*NET elements of WA and KSA, along with their respective subordinate elements. See the Appendix. O*NET defines work activities as "general types of job behaviors occurring on multiple jobs."[148] Several subordinate elements of work activities are further categorized as "mental processes" and answer the question: "What processing, planning, problem-solving, decision-making, and innovating activities are performed with job-relevant information?"[149] An example of one of the subordinate elements within work activities is mental processes, "judging the qualities of things, services, or people" and is defined as "assessing the value, importance, or quality of things or people."[150] See Figure 5 for an example of coding this particular work activity using the qualitative data analysis software program, MAXQDA. This example demonstrates how the team went about coding the statements, accounts of events, and descriptions of people throughout *Networks of Democracy*.

147 "About O*Net." The O*NET program is the nation's primary source of occupational information. Central to the project is the O*NET database, which contains information on hundreds of standardized and occupation-specific descriptors. The database, which is available to the public at no cost, is continually updated by surveying a broad range of workers from each occupation. Information from this database forms the heart of O*NET OnLine, an interactive application for exploring and searching occupations. The Occupational Information Network (O*NET) is being developed under the sponsorship of the U.S. Department of Labor/Employment and Training Administration (USDOL/ETA) through a grant to the North Carolina Department of Commerce…and the Research Triangle Institute (RTI).

148 "About O*Net."

149 "O*NET Work Activities," accessed March 12, 2014, http://www.onetonline.org/find/descriptor/browse/Work_Activities/.

150 Ibid.

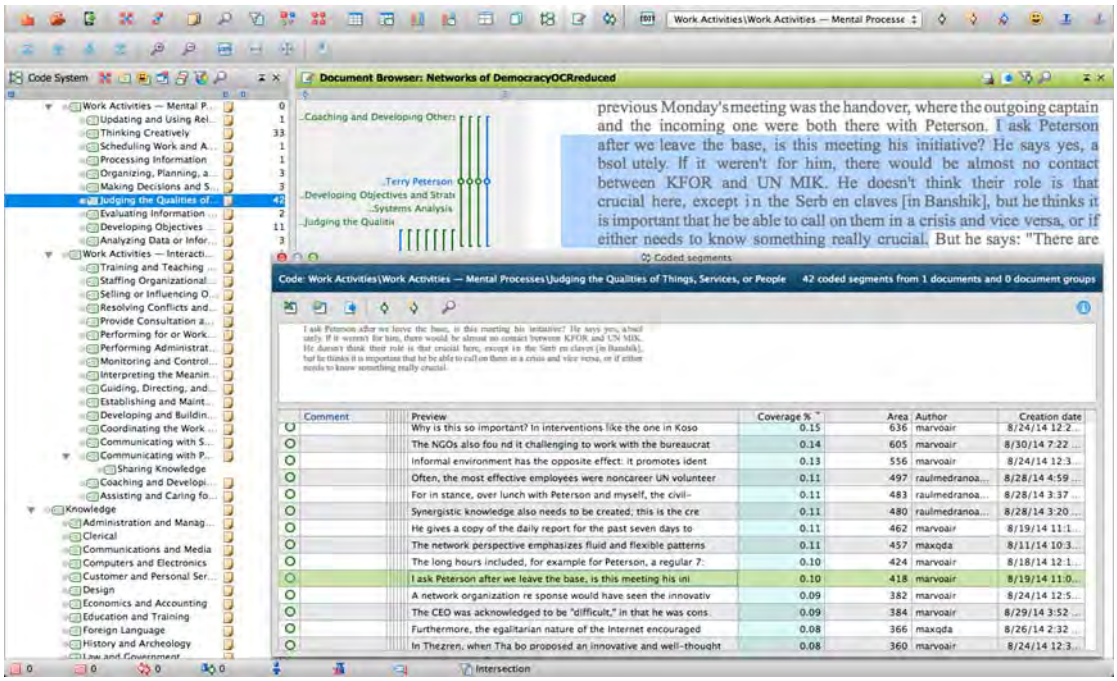


Figure 5. Work Activities

The definitions for the remaining three coding categories follow. Knowledge is defined as "organized sets of principles and facts applying in general domains."[151] One such example of knowledge in a general domain is administration and management, which requires "knowledge of business and management principles involved in strategic planning, resource allocation, human resources modeling, leadership technique, production methods, and coordination of people and resources."[152] Skills are defined as "developed capacities that facilitate learning or the more rapid acquisition of knowledge."[153] An example of a specific skill would be complex problem solving skill defined as "developed capacities used to solve novel, ill-defined problems in complex, real-world settings."[154] Lastly, abilities are defined as "enduring attributes of the

151 "O*NET Knowledge," accessed March 12, 2014, http://www.onetonline.org/find/descriptor/browse/Knowledge/.

152 Ibid.

153 "O*NET Skills," accessed March 12, 2014, http://www.onetonline.org/find/descriptor/browse/Skills/.

154 Ibid.

individual that influence performance."[155] An example category of abilities are cognitive abilities, which are defined as "abilities that influence the acquisition and application of knowledge in problem solving."[156] One such cognitive ability is deductive reasoning defined as "the ability to apply general rules to specific problems to produce answers that make sense."[157]

During the coding process, in addition to relying on the O*NET categorical definitions, the study team drew upon its own experiences of similar challenges and environments[158] from their careers as U.S. Army Civil Affairs officers to assess how a passage of text containing a statement, account of an event, or a description of an individual or an organization should be coded.

### *b. Cross-Case Analysis*

The study team also conducted a comparison of coded WA and KSA to determine key cross-case differences, specifically in the attributes and conduct of actors. The coding of 178 pages of text covering the actors involved in the two cases resulted in 952 coded instances of 80 categories of WA and KSA used in the coding scheme. The study team also relied on career experience to assign either a value of positive one or a value of negative one to each coded instance depending on whether the instance was a successful demonstration of a category or whether the instance was a failed demonstration of a category. For example, if a passage of text demonstrated an actor's successful execution of service orientation[159] skill by choosing to live in the municipality he was servicing to be more available as a UN civil administrator, then that instance was coded with a value of positive one for service orientation. Likewise, if a UN civil administrator chose to live

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155 "O*NET Abilities," accessed March 12, 2014, http://www.onetonline.org/find/descriptor/browse/Abilities/.

156 Ibid.

157 Ibid.

158 Lee, *Using Qualitative Methods in Organizational Research*, 45. In grounded theory, the researchers must conduct ongoing interpretation of the data using "their own experiences to bear on the empirical data."

159 "O*NET Skills." Service Orientation is defined as "actively looking for ways to help people."

outside the municipality being servicing, based on personal preference, then that instance was coded as a negative instance of service orientation, and was assigned a value of negative one.

Quantitative analysis of the coded data, and comparison and contrast of each categories' total numerical value difference between actors, revealed the primary ways in which the observed WA and KSA differed between the two cases. For example, if an actor (whether an individual or an organization) in one case was coded two times with positive service orientation and five times with negative service orientation then that actor's total score for service orientation would be a negative three. Contrast this score with an actor in the other case with a total score for service orientation of positive four and the resulting delta between the cases' two scores is seven value points.

By utilizing the coding query function within MAXQDA, it was possible to return a table format of all coded WA and KSA instances associated with individuals and organizations. Exporting these tables into Microsoft Excel allowed the study team to calculate the delta easily between each actor's WA and KSA code, per individuals and organizations in the cases, and list these deltas from greatest to least. The categories with the greatest delta were then subjected to ongoing interpretation.

### 6. Building Theory

The final methodological step was to follow Strauss and Corbin's set of procedures to develop an inductively derived, grounded theory about two network cases in Kosovo. As stated in Strauss and Corbin, "building theory by its very nature implies interpreting data, for the data must be conceptualized and the concepts related to form a theoretical rendition of reality."[160] In the grounded theory method, the resultant grounded theory itself, is then "one that is inductively derived from the study of the phenomenon it represents it is discovered, developed, and provisionally verified through systematic data collection and analysis of data pertaining to that phenomenon."[161]

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[160] Strauss and Corbin, *Basics of Qualitative Research: Grounded Theory Procedures and Techniques*.

[161] Ibid.

### *a. Concepts Emerge*

After completing analysis of the WA and KSA, the study team continued in ongoing interpretation of the coded data and identified concepts that characterized the actions of both organizations and individual actors. Concepts are useful in that they provide "a basis for discourse and arriving at shared understandings."[162] Four such concepts were identified, which the authors called composite factors: expertise, sense-making, connection, and action. Each composite factor is based on thematic combinations of differences displayed in terms of WA and KSA between UNCA Banshik and UNCA Thezren.

Holohan's identified narrative concept is also built upon. The coded data and associated memos were reorganized into actor groups consisting of individuals and organizations within the two separate cases as it pertained to narrative. Based on the memo content from each actor group, it was possible to identify a distinct narrative in both cases, which was "the story that individuals told each other."[163] This story, or narrative, "expressed a sense of identity and belonging" within the networks and "communicate[d] a sense of cause, purpose and mission."[164]

### *b. Model Development*

A grounded theory approach was employed to produce a process model that guides social network development within inter-organizational networks. The preceding analytical process allowed the team to observe possible ways in which the identified composite factors might relate to each other and to the network's performance. The team proposes that the composite factors may relate to each other in a process model in which expertise is first required, then sense-making is conducted, connection is developed, and action is undertaken. Throughout this proposed process model, actors also simultaneously develop, make use of, and refine a narrative throughout. The overall process model is

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[162] Corbin et al., *Basics of Qualitative Research : Techniques and Procedures for Developing Grounded Theory*, 12.

[163] Arquilla et al., *Networks and Netwars the Future of Terror, Crime, and Militancy*, 324.

[164] Ibid., 328.

offered to explain how a network develops and evolves its design that is appropriate to its environment and purpose, especially those pertaining to the accomplishment of security objectives.

### 7. Study Advantages

The use of multiple research methods enabled the authors to explore the phenomena of network development from various perspectives. This study adds depth to Anne Holohan's interpretations of the stark differences between observed inter-organizational networks; differences that were required in the cases to follow the "method of paired difference" as an aid in inductively building theory.[165] Building on her anecdotes from which she derives her conclusions, a combination of quantitative and qualitative methodologies was used to structure and analyze her data, and confirm and reinforce her findings on networks. In addition, the authors' grounded theory approach went well beyond Holohan's to formulate new insights and concepts they believe are important in understanding networks and their development as viewed through a process lens. They also believe the methodologies used in this study could serve as a starting point for additional analysis of network development in other settings to build a more generalizable theory beyond the two cases in this study.

### 8. Limitations

The authors' coding (SNA and MAXQDA) is limited by their primary source document—Anne, Holohan's *Networks of Democracy*. Their study relies on her description of the network and her understanding of the UNCA organizations within the cases. Thus, her reporting and interpretation of events limit the process model. *Networks of Democracy* does not provide strictly longitudinal data (observations of change acquired at regular time intervals) but generally depicts a process of network development, and is therefore, useful for proposing an initial process model. They also acknowledge that additional variables could have been considered to approximate more

[165] Van Evera, *Guide to Methods for Students of Political Science*, 23.

closely all the details of this book but they believe it would have overly complicated the model and reduced its usefulness.

Their intent was to build a theory of network development, yet due to research design limitations, were able to only develop the basic elements of a process model. They suggest additional theory development and testing be undertaken in future studies by this team or other Naval Postgraduate School students using other cases in different contexts to develop a formal theory.

As mentioned earlier, the authors drew upon career experience during the coding process, which introduces a significant degree of subjectivity. However, the use of debate and consensus in their analytical sessions ensured that their coding of passages remained in line with what an informed observer might code. Finally, they did not observe the exact same instances, or amount of instances, between both cases such that they could compare actors' conduct in a direct one-to-one fashion. However, they observed the same types of instances between the actors in the two cases, and therefore, deemed it methodologically acceptable to compare and contrast the two case observations with each other to help identify an overall pattern of activity.

This chapter described the authors' methodology for creating a process model of social network development in support of the GSN. They undertook a mixed-methods research design that included the following steps: case selection, systems framework analysis, SNA, network design continuum analysis, activity analysis, and then they finalized their interpretation of the data to propose a model of social network development o. Chapter IV, the first analysis chapter, presents systems framework analysis, SNA, and network design continuum analysis.

# IV. CASE ANALYSIS PART I: SYSTEMS FRAMEWORK AND SOCIAL NETWORK ANALYSIS

Chapter III explained the methodology employed in this thesis, which includes both quantitative and qualitative methods. This chapter analyzes and compares network design in UNCA Banshik and UNCA Thezren using the systems framework and SNA.

## A. INTRODUCTION

*Networks of Democracy* tells the story of two UNCA teams operating in neighboring municipalities, Banshik and Thezren, in post-conflict Kosovo. The United Nations (UN) mandated each team to act as the lead organization of an inter-organizational network in their respective municipalities. Each UNCA team created its own social network to accomplish the UN mandate objectives of institution building, democratization, and reconstruction.[166] Holohan makes it clear that each municipality was very similar in both working environment and purpose. As similar as the environment and goals of Banshik and Thezren were, Holohan describes their results as negative images of one another.[167]

This chapter examines the networks in each case as a system within the environment of Kosovo guided by Nancy Roberts's "Systems Framework."[168] The framework guides examination of three major components in a network: Inputs (purpose and environment), throughputs (people, tasks and jobs, work processes, structure), and results (culture, outputs and outcomes). This chapter examines each case's network inputs and results, and expands on Holohan's observations of the network throughputs through SNA techniques. The chapter concludes with the use of the network design

[166] Holohan, *Networks of Democracy: Lessons from Kosovo for Afghanistan, Iraq, and Beyond,* 5.

[167] Ibid., 12.

[168] Roberts, "Transforming Organizational Culture Lessons Learned from a Systems Perspective."

continuum[169] for interpretation of insights from the systems framework and SNA, and identification of tensions or misfits in each network's design.

## B. SYSTEMS FRAMEWORK

### 1. Inputs

#### *a. Environmental Context: Kosovo*

It is important to remember that Kosovo had longstanding historical significance for the opposing regional ethnic groups, primarily consisting of Albanians and Serbs. The region now known as Kosovo had been contested since the 14th century, and was subject to mass violence between its two major groups every time imperial powers ruling the country withdrew or collapsed like the Ottoman Empire from 1875–78, the Austro Hungarian empire from 1914–1918, and the first Yugoslavia from 1941–1945.[170] Although coexistence had occurred under the Tito regime (1945–1980), the people of Kosovo did not consider themselves united as they were constantly in competition with one another.[171]

The ethnic Albanian population in Kosovo has always sought full autonomy. Although Kosovo enjoyed some degree of autonomy under Tito, even this peak in autonomy was never sufficient for many Kosovar Albanian ethno-nationalists. Tito's death in 1980, in combination with the collapse of the Soviet Union, and the early 90s Yugoslav civil wars, upset the status quo during which Kosovar Albanians saw an opportunity to seize greater autonomy. In 1989, in response to these demands for increased autonomy, the Serbian leader Slobodan Milosevic revoked any degree of autonomy that Kosovo previously had. In addition, Milosevic's response included removing Albanians from official public positions, which resulted in the creation of Albanian parallel structures, such as the Democratic League of Kosovo (LDK), and a

[169] Roberts, "Network Design Continuum: Moving Beyond the Fault Lines in Social Network Theory and Research." See Chapter III Literature Review of this thesis for an introduction to the Network Design Continuum.

[170] Robert M. Hayden, "Moral Vision and Impaired Insight: The Imagining of Other Peoples' Communities in Bosnia," *Current Anthropology* 48, no. 1 (February 2007): 111.

[171] Ibid., 113.

polarized society within Kosovo. During this time, the majority ethnic group (Kosovar Albanian) was being excluded from the political process by the minority ethnic group (Kosovar Serbian) with a 1991 census identifying the population of Kosovo as two million, with 82% ethnic Albanian, 10% Serbian, and 8% other.[172]

Many Kosovar Albanians soon became dissatisfied with the nonviolent approach of the LDK and the failure of the 1995 Dayton Peace Accords to address the Kosovo situation. During this period, many sought more aggressive outlets to achieve greater autonomy leading to the formation of the Kosovo Liberation Army (KLA) as an alternative to the nonviolent LDK. Largely in response to disappointment with the Dayton Peace Accords, the KLA sought to hasten change by becoming more of an armed resistance movement to Serbian authority with the establishment of an independent Kosovo as their objective.[173] The KLA soon benefitted from an increased availability of weapons due to the collapse of the Albanian government in 1997[174] and began conducting attacks against Serbian authorities in Kosovo, which signaled their emergence as a legitimate armed resistance movement.[175] Milosevic responded in 1998 with the heavy-handed use of the Serbian security forces, including police and soldiers, which resulted in 200,000–300,000 Albanian internally displaced persons (IDPs),[176] the harming of non-combatants, and negative attention from the international community. By 1998, the international community became increasingly involved in Kosovo culminating with the Rambouillet Accords, which sought a cease-fire agreement. The intransigence of Milosevic to agree to the Rambouillet accords led NATO to conduct airstrikes against Serbia in March 1999. After 78 days of the bombing campaign, and Russian diplomatic intervention, Serbia conceded to a military technical agreement in June 1999, which

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[172] William J. Durch, ed., *Twenty-First-Century Peace Operations* (Washington, DC: United States Institute of Peace and the Henry L. Stimson Center, 2006), 322.

[173] Ibid., 322–323.

[174] Mark A. Wolfgram, "When the Men with Guns Rule: Explaining Human Rights Failures in Kosovo since 1999," *Political Science Quarterly* 123, no. 3 (September 1, 2008): 469, doi:10.1002/j.1538-165X.2008.tb00631.x.

[175] Durch, *Twenty-First-Century Peace Operations*, 323.

[176] Ibid., 324.

outlined the withdrawal of Serbian forces from Kosovo to be replaced by Kosovo Forces (KFOR). In late June 1999, the UN Security Council passed UN Resolution 1244, which authorized the deployment of an international stabilization force consisting of KFOR and UNMIK.[177]

### *b. Environmental Context: Banshik and Thezren Municipalities*

The municipalities of Banshik and Thezren were adjacent to each other and very similar. Both UNCA teams had to work within a similar environment and address comparable problems: an austere environment created by the war, ethnic tensions, nonexistent governance institutions, and the tasks associated with using inter-organizational collaboration as a means to address stability and reconstruction in their areas of responsibility. Even before the war, Kosovo was the poorest province within Yugoslavia.[178] Banshik and Thezren were two of the most heavily damaged municipalities of Kosovo, with just under half of all houses in each destroyed.[179] Holohan describes it as "A place where many houses and public buildings are heaps of rubble, where electricity is constantly cutting out, where running water is only sporadically available."[180] They each had a population between 80,000 and 100,000 with a postwar Serb population of less than 5 percent.[181] The taxation and banking systems were nonexistent, government departments either did not exist before the war or were run by members of the ousted regime, property records had been destroyed or stolen, or lost.[182] A host of diverse organizations was present in both municipalities of which the two primaries were KFOR and Organization for Security and Cooperation in Europe (OSCE). KFOR was a major partner led by the French in both municipalities, and was responsible for "establish[ing] and maintain[ing] a secure environment, assist[ing]

[177] Durch, *Twenty-First-Century Peace Operations*, 333.

[178] Ibid., 322.

[179] Holohan, *Networks of Democracy: Lessons from Kosovo for Afghanistan, Iraq, and Beyond*, 12.

[180] Ibid., 2.

[181] Ibid., 12.

[182] Ibid.

UNMIK, and monitor[ing] the Military Technical Agreement"[183] The OSCE was another major partner organization that assumed the generic task of "promoting democratization and institution building," which manifested in assistance with elections, the training of local administrators, and human rights compliance.[184] In addition, both municipalities consisted of emerging local institutions, civilian police forces, and various NGOs.

### *c. System Direction (Mandate, Values, Mission, Strategic Issues, Vision, Goals and Strategies)*

The UN recognized that this situation would be best addressed through the cooperation of multiple organizations. This view is expressed in the language of the UN Security Council Resolution 1244, which stated the following: "[The UN Security Council] Affirms the need for the rapid early deployment of effective international civil and security presences to Kosovo, and demands that the parties cooperate fully in their deployment."[185] The UNMIK intervention in Kosovo "was the first intervention that had been designed so that other multilateral organizations were full partners under UN leadership."[186] Each municipal UNCA team had access to the same resources and guidance from the regional UNCA office. Both shared the same goals of the international intervention, institution building, democratization, and reconstruction.[187] However, each regional UNCA only had specified authority over its internal personnel and did not exercise any authority or control over other organizations present in the environment. Thus, both UNCA organizations had to gain the cooperation of other organizations to work in a coordinated fashion towards the accomplishment of the mission. In essence, they had to create an inter-organizational network.

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[183] Holohan, *Networks of Democracy: Lessons from Kosovo for Afghanistan, Iraq, and Beyond*, 139.

[184] Anne Marie Holohan, "Webs Not Walls: International Organizations as Networks and Hierarchies in Kosovo" (PhD diss., University of California, Los Angeles, 2002), 35.

[185] Bjørn Møller, *The UN, the USA and NATO: Humanitarian Intervention in the Light of Kosovo* (Copenhagen: Copenhagen Peace Research Institute, 1999), http://www.ciaonet.org/wps/mob09/.

[186] Holohan, *Networks of Democracy: Lessons from Kosovo for Afghanistan, Iraq, and Beyond*, 5.

[187] Ibid.

### 2. Throughputs

#### *a. Jobs and Tasks*

As mentioned previously, the UN mandate governing the intervention called for the stabilization and democratization of Kosovo. At the municipality level, it translated into coordinating housing reconstruction, mentoring local officials, rebuilding infrastructure, aiding in the establishment of security, and generally addressing local grievances as necessary. Each UNCA had the freedom to develop processes for accomplishing these tasks and jobs. UNCA Banshik did so in an informal, adaptive fashion reliant upon unofficial engagements with key stakeholders. UNCA Thezren developed formalized, rigid processes dependent upon official meetings with key stakeholders. How each team performed the task of its respective weekly coordination meeting demonstrates each team's level of formality.

Thezren's interagency meeting was very formal.[188] It assigned seating for designated participants. The mediator conducted the meeting according to rigid procedures, such as turns in a clockwise manner. He would take the time to thank each speaker and introduce the next speaker. The mediator would also not allow speaking out of turn. If stakeholders arrived late, the mediator would admonish them publicly. Thezren's meeting resulted in a presentation of issues as a staff briefing.

Banshik's interagency meeting was conducted in a more informal manner.[189] The room was smaller, and people would sit in very close proximity to each other without assigned seating. Refreshments were provided, including alcoholic beverages. Each speaker's turn was determined more by the flow of discussion of an issue than by a predetermined order. Holohan also reports a sense of familiarity among stakeholders, as evidenced by humor throughout the meeting. Banshik's meeting resulted in a working group focused on task-oriented collaboration.

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[188] Holohan, *Networks of Democracy: Lessons from Kosovo for Afghanistan, Iraq, and Beyond*, 79.

[189] Ibid., 80.

### *b. People*

In both cases, UN personnel from diverse national origins participated, as well as locally hired personnel with useful first-hand knowledge of the environment and pre-conflict situation. The authors' source document, *Networks of Democracy*, provides general information about the majority of individuals in the case studies and increased detail regarding the leadership of both UNCA organizations.

In the case of UNCA Banshik, the organization consisted of individuals who are primarily non-career UN personnel and possessed diverse career backgrounds including public, private, academic, and even military experience. Their motivation appeared to be goal-centric, and was focused on improving the local situation above all else. The general mindset in Banshik appeared to be one of openness, innovation, and commitment to mission accomplishment. The overall expectation in Banshik seemed to be that individuals would improve outcomes in the municipality through cooperation with diverse partners in creative ways.[190] In Banshik, the observed predominant KSA were oriented towards developing an understanding of the operational environment and connection with diverse partners in a collaborative network.

The municipal administrator in Banshik, Terry Peterson, was a retired U.S. Special Forces Colonel in his 50s with military experience in Asia, fluent in Chinese, and possessed a Ph.D. in political science.[191] In general, he appeared to be motivated by a genuine desire to improve the situation through a mindset geared towards discovery and adaptation. Peterson also seemed to have an expectation that the situation could be improved through cooperation with diverse stakeholders. Overall, Peterson was a very social person who saw the value in diverse individuals in social space.

In the case of UNCA Thezren, the organization consisted of individuals who are primarily career UN personnel lacking in a diversity of backgrounds. Their motivation appeared to be career-centric and focused on executing traditional roles within the UN

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[190] Holohan, *Networks of Democracy: Lessons from Kosovo for Afghanistan, Iraq, and Beyond*, 138.

[191] Holohan, "Webs Not Walls: International Organizations as Networks and Hierarchies in Kosovo," 77.

bureaucracy. The general mindset in Thezren appeared to be conventional and hierarchical.[192] The overall expectation in Thezren seemed to be that individuals would improve the outcome in the municipality through following directed processes and established UN guidelines without the need for innovation and initiative. In Thezren, the observed predominant KSA were oriented towards conducting internal clerical and administrative functions and processes.

The municipal administrator in Thezren, Khalid Shamon, "was a retired diplomat from Bangladesh,"[193] and in his late 60s.[194] In general, he appeared to be motivated by achieving efficiency within a bureaucratic system with a mindset of rote adherence to guidelines and procedures. Shamon also seemed to have an expectation that bureaucratic efficiency would produce positive results. Overall, Shamon was a skilled administrator in a traditional, hierarchical, bureaucratic context.

### *c. Network Structures of Banshik and Thezren and Social Network Analysis*

Relationships between and among actors in Banshik and Thezren, through interactions, created network structures that can be depicted in sociograms[195] and examined empirically through SNA techniques. This section uses sociograms and SNA metrics to describe the overall network structures. If analyzed in the proper context, a network's structure can give insight into several design factors: leadership patterns and styles, potential for power and/or leadership among specific actors, coherence within the network, levels of formality or hierarchy, and degree of integration between members of the network. These design factors can help an analyst determine a network's location on the design continuum, and ultimately, assist in determining whether its design is the right fit for the network's inputs and desired results.

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[192] Holohan, *Networks of Democracy: Lessons from Kosovo for Afghanistan, Iraq, and Beyond*, 51.

[193] Holohan, "Webs Not Walls: International Organizations as Networks and Hierarchies in Kosovo," 77.

[194] Holohan, *Networks of Democracy: Lessons from Kosovo for Afghanistan, Iraq, and Beyond*, 133.

[195] A graphic representation of social relationships.

Figure 6 is a two-mode[196] sociogram that depicts the coded relationships among individuals and organizations in Banshik and Thezren. Banshik actors (circular icons) and organizations (square icons) are colored red (right network) and Thezren's are colored blue (left network). A visual inspection provides insight into the patterns of relationships in and between the researchers' case studies. For a more detailed description, various parts of the network are separated for a closer assessment.

[196] A one-mode network "consists of a single set of actors." Two-mode networks depict relationships between "one set of actors and one set of events."

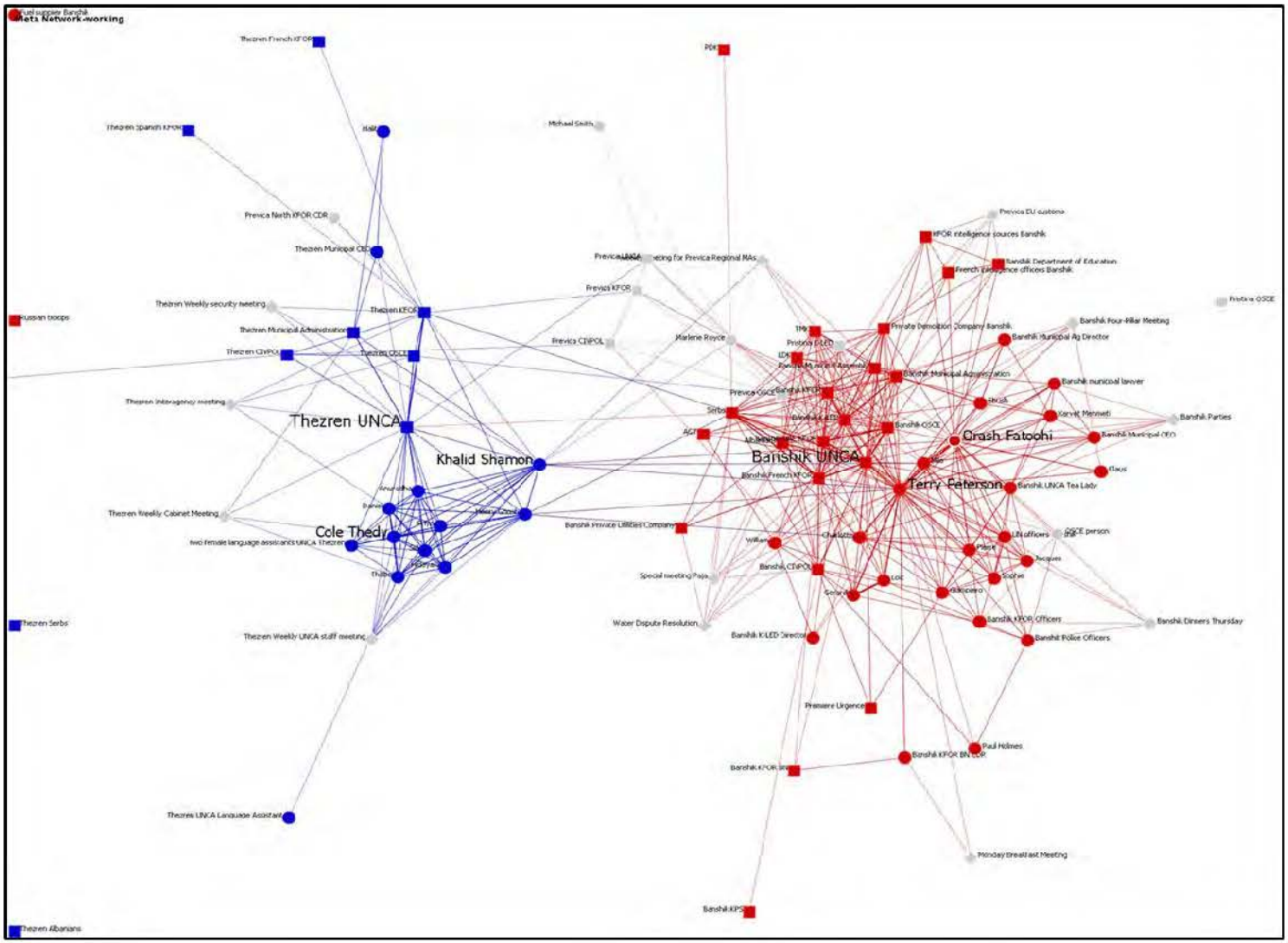


Figure 6. Banshik and Thezren Complete Network

(1) Individual Level of Analysis of Banshik and Thezren. The initial description of these networks focuses on the actors of the entire network (both municipalities) as it pertains to UNCA operations as noted in Chapter III, in which 41 actors belong to 41 organizations and 11 events. Holohan also describes several types of relationships between the actors throughout the text. The authors identified them as social ties and official ties. The former are ties among actors, identified as friends connected to one another through social events. The latter are ties among actors connected through collaboration activities, such as shared meeting attendance, shared employment, and organizational collaboration. The social ties and the official ties networks have been aggregated (combined) to examine all relationships within the UNCA network.

(2) Social Ties Among Individuals in the Thezren and Banshik Network. Throughout the text, Holohan mentions only a few friendships specifically, so the social ties network is initially not descriptive on its own. Therefore, social events have been included in describing the social ties network. For example, the UNCA office in Banshik hosted regular Thursday night dinners and Saturday night social events with several actors as frequent patrons.[197]

Combining these networks into one social network (Figure 7) illuminates relations that contribute to the structure of UNCA operations in Banshik and Thezren. Sixteen of the 42 actors in the complete network maintain social ties in this network. The social ties network consists of three components,[198] with the largest consisting of the 11 actors who attended the social events in Banshik, while the other two represent two groups of friends identified in Thezren. This network of social ties consequently contributes to higher centrality scores for actors in the Banshik sub-group of the aggregated network. In particular, the centrality scores for municipal administrator (MA) Terry Peterson and his deputy (DMA) Orash Fatoohi are substantially higher than all others in the social ties network. At the leadership level, the existence of this sub-network and UNCA Banshik's

[197] Holohan, *Networks of Democracy: Lessons from Kosovo for Afghanistan, Iraq, and Beyond*, 82.

[198] "A component is a subnetwork in which members are connected to one another (either directly or indirectly) but are not connected with members of other subnetworks." Everton, *Disrupting Dark Networks*, 8403.

participation in it indicate that UNCA Banshik has a more informal and inclusive disposition than UNCA Thezren.

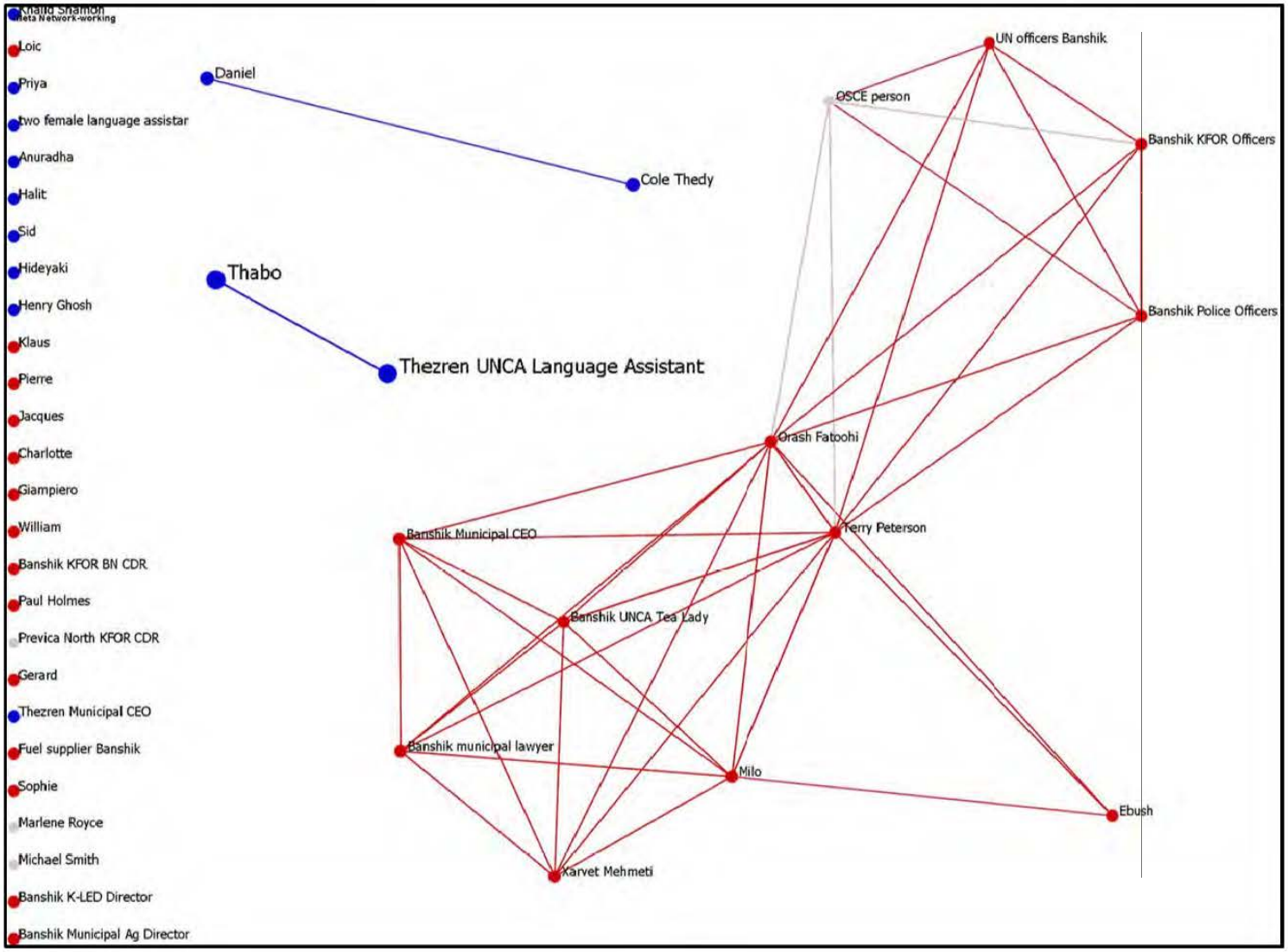


Figure 7. Social Ties Network

(3) Social Ties Network: Network Level Measures. The social ties network is a small part of the aggregated network, as it contains only 16 of the potential 42 actors, which results in a low network density with 26 actors as isolates. The longest-shortest path (geodesic) between any connected actors is three that produces a network diameter of three. The social ties network is centralized because it is based on social events that most actors attend. (See Table 3)

Table 3. Social Ties—Network Level Measures Calculated by ORA[199]

| Measure | Value | Comment |
|---|---|---|
| Actors | 42 | Everyone |
| Isolates | 26 | Actors without identified social ties |
| Density | .050 | The degree to which a network is connected |
| Diameter | 3 | The longest-shortest path between all connected actors in one component |
| Degree Centralization | 0.116 | Variance in actor centrality |

(4) Social Ties Network: Actor Measures. *Networks of Democracy* portray two ego networks based on the UNCA offices in Banshik and Thezren. Terry Peterson was the MA of the Banshik office and Khalid Shamon was the MA in Thezren. Peterson hosted the Banshik social events, attended the weekly dinners, and maintained social relationships. These activities produced 17 ties within the social network alone. Khalid Shamon believed that he had to remain socially detached,[200] and is consequently an isolate in the social ties network. Orash Fatoohi, the Banshik DMA, attended the same social functions as Peterson, and thereby, scored almost as high in centrality measures. The remaining top 10 actors in terms of centrality measures scored relatively evenly based on their attendance at the only two social events available as depicted in this network. (See Table 4)

[199] Carley, *ORA.*

[200] Holohan, *Networks of Democracy: Lessons from Kosovo for Afghanistan, Iraq, and Beyond*, 77.

Table 4. Social Ties—Actor Measures[201]

| Actor | Degree | Degree (raw) | Eigenvector | Closeness | Betweeness |
|---|---|---|---|---|---|
| Terry Peterson | 0.135 | 17.000 | 0.736 | 0.011 | 0.012 |
| Orash Fatoohi | 0.119 | 15.000 | 0.700 | 0.011 | 0.012 |
| Milo | 0.079 | 10.000 | 0.486 | 0.011 | 0.001 |
| Banshik UNCA Tea Lady | 0.063 | 8.000 | 0.398 | 0.011 | 0.000 |
| Banshik municipal lawyer | 0.056 | 7.000 | 0.326 | 0.011 | 0.001 |
| Xarvet Mehmeti | 0.056 | 7.000 | 0.326 | 0.011 | 0.001 |
| Banshik Municipal CEO | 0.056 | 7.000 | 0.326 | 0.011 | 0.001 |
| Banshik KFOR Officers | 0.048 | 6.000 | 0.234 | 0.011 | 0.000 |
| UN officers Banshik | 0.048 | 6.000 | 0.234 | 0.011 | 0.000 |
| OSCE person | 0.048 | 6.000 | 0.234 | 0.011 | 0.001 |

(5) Official Ties Network. In the course of depicting how business was conducted in the municipalities, Holohan reveals several types of relations that comprise the authors' official ties network (Figure 8): actor-to-actor collaboration, actor-to-actor meetings, actor-to-actor shared organization, and actor-to-actor collaboration by organizations. These working relationships between individuals, also known as actors, are in place to complete work-related tasks. The official ties network is coded under several assumptions: actors have working relationships when they regularly attend the same business meetings, actors working for these small organizations have official ties when they work for the same organization, and actors of these small organizations develop actor-to-actor ties as their organizations collaborate. While not an official account of work-related relationships, the compilation of these anecdotally identified working relationships provides a view of the official ties network.

[201] Carley, *ORA.*

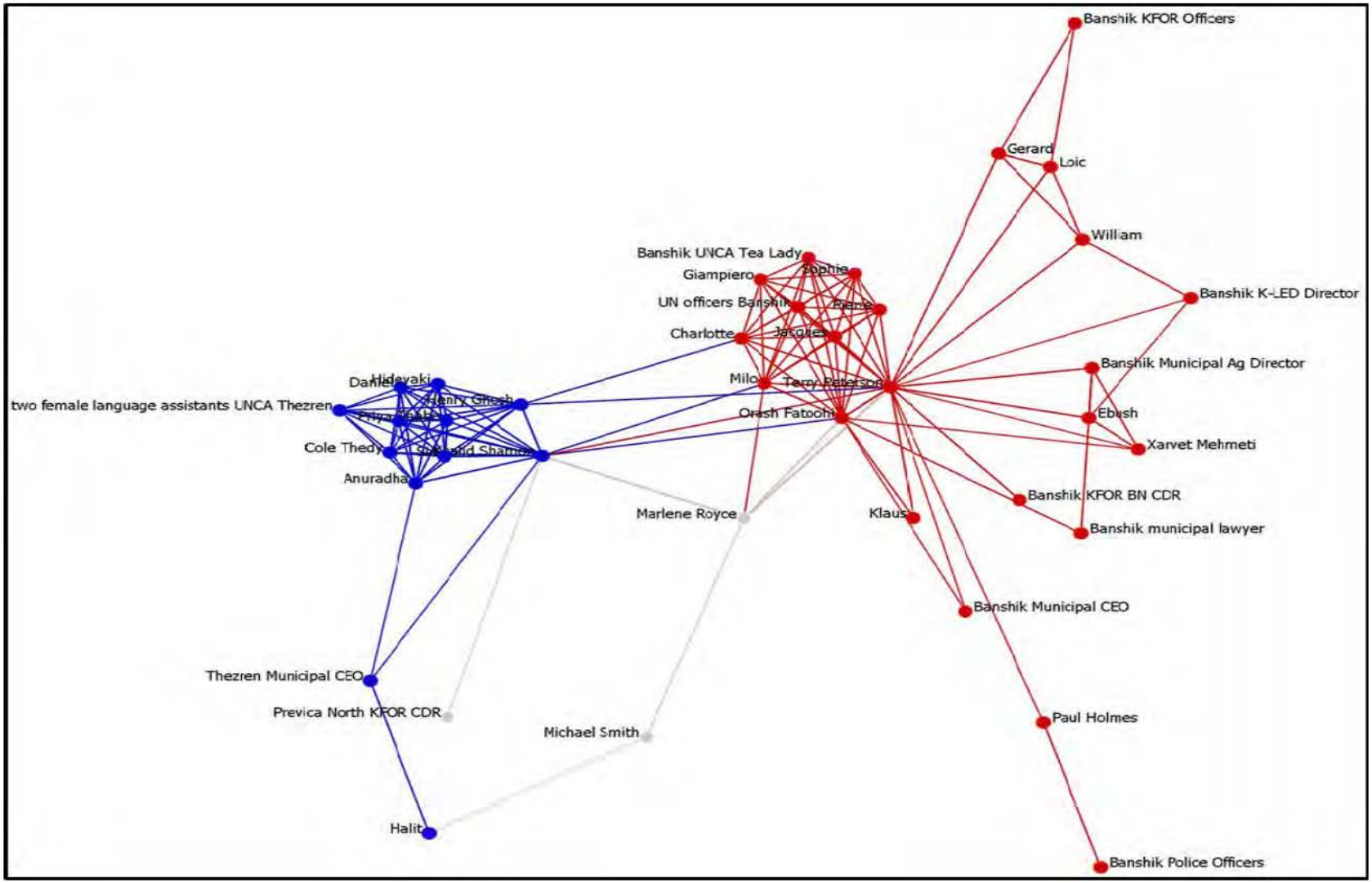


Figure 8. Official Ties Network

(6) Network Level Measures. Since *Networks of Democracy*[202] is a story about how organizations collaborate to reach common goals, the official ties network is much more robust than the social ties network. It consists of the same 42 actors with only three isolates. This increased connectivity between actors increases the diameter of the network to eight, as compared to three in the social ties network. The official ties network also measures lower in centralization than the social ties network for two reasons. It is larger in terms of connected actors, and the relationships are based on collaboration activities throughout Kosovo rather than a few social events and friendships. (See Table 5)

Table 5. Official Ties—Network Level Measures[203]

| Measure | Value | Comment |
|---|---|---|
| Actors | 42 | Everyone |
| Isolates | 3 | Actors W/O identified official ties |
| Density | 0.166 | The degree to which a network is connected |
| Diameter | 8 | The longest-shortest path between all connected actors |
| Degree Centralization | 0.042 | Variation in actor centrality |

(7) Actor Measures. *Networks of Democracy*[204] makes a comparison between two UNCA teams working in similar municipalities. Holohan argues that the UNCA team in Banshik outperformed the team in Thezren because the Banshik team created a more collaborative network. At a glance, the centrality measures of the entire network support her argument (See Table 6). Banshik MA Terry Peterson scores highest in all but one measure of centrality. He does not score the highest in closeness centrality because closeness centrality scores are level throughout this network. Banshik DMA Orash Fatoohi similarly scores high in centrality measures. Thezren MA Khalid Shamon also scores high in centrality measures based on his attendance at Thezren's weekly interagency meeting, whereas his deputy ranks fifth in centrality measures. After the top

[202] Holohan, *Networks of Democracy: Lessons from Kosovo for Afghanistan, Iraq, and Beyond*.

[203] Carley, *ORA.*

[204] Holohan, *Networks of Democracy: Lessons from Kosovo for Afghanistan, Iraq, and Beyond*.

four actors in each measure, the scores appear to level out. A few actors who work at the provincial level rank higher in betweenness, but the focus of this analysis is the municipality level. One important difference between Banshik and Thezren leadership is that, even though they both display high centrality scores in their respective networks, the Thezren network contains very few actors who are not in the UNCA itself and Banshik displays diverse membership. In this context, Banshik's higher centrality scores indicate openness in network membership.

Table 6. Official Ties—Actor Level Measures[205]

| Actor | Degree | Degree (raw) | Eigenvector | Closeness | Betweenness |
|---|---|---|---|---|---|
| Terry Peterson | 0.06 | 48 | 1.181 | 0.008 | 0.390 |
| Khalid Shamon | 0.034 | 27 | 0.167 | 0.008 | 0.252 |
| Orash Fatoohi | 0.034 | 27 | 0.476 | 0.008 | 0.125 |
| Henry Ghosh | 0.029 | 23 | 0.129 | 0.008 | 0.099 |
| Cole Thedy | 0.026 | 21 | - | - | - |
| Thabo | 0.026 | 21 | - | - | - |
| Daniel | 0.025 | 20 | - | - | - |
| Anuradha | 0.025 | 20 | - | - | 0.040 |
| Priya | 0.024 | 19 | - | - | - |
| Sid | 0.024 | 19 | - | - | - |

(8) Aggregated Combined Network of Social and Official Ties. Visual inspection of the aggregated network[206] depicts Holohan's narrative of a more robust network having been developed in Banshik than in Thezren. This aggregated network combines and sums the ties in the social ties and the official ties networks. The sub-networks are apparent in the topography in Figure 9, as well as highlighted by different colors with Banshik actors in red and Thezren in blue. The remaining actors who are either at the provincial level or unknown are colored grey. In the following section, analyzing the Banshik and Thezren sub-groups separately and contrasting them against one another, differences between the two structures are explored.

[205] Carley, *ORA*.

[206] The aggregated network is the sum of all relationships in the network. See Chapter III.

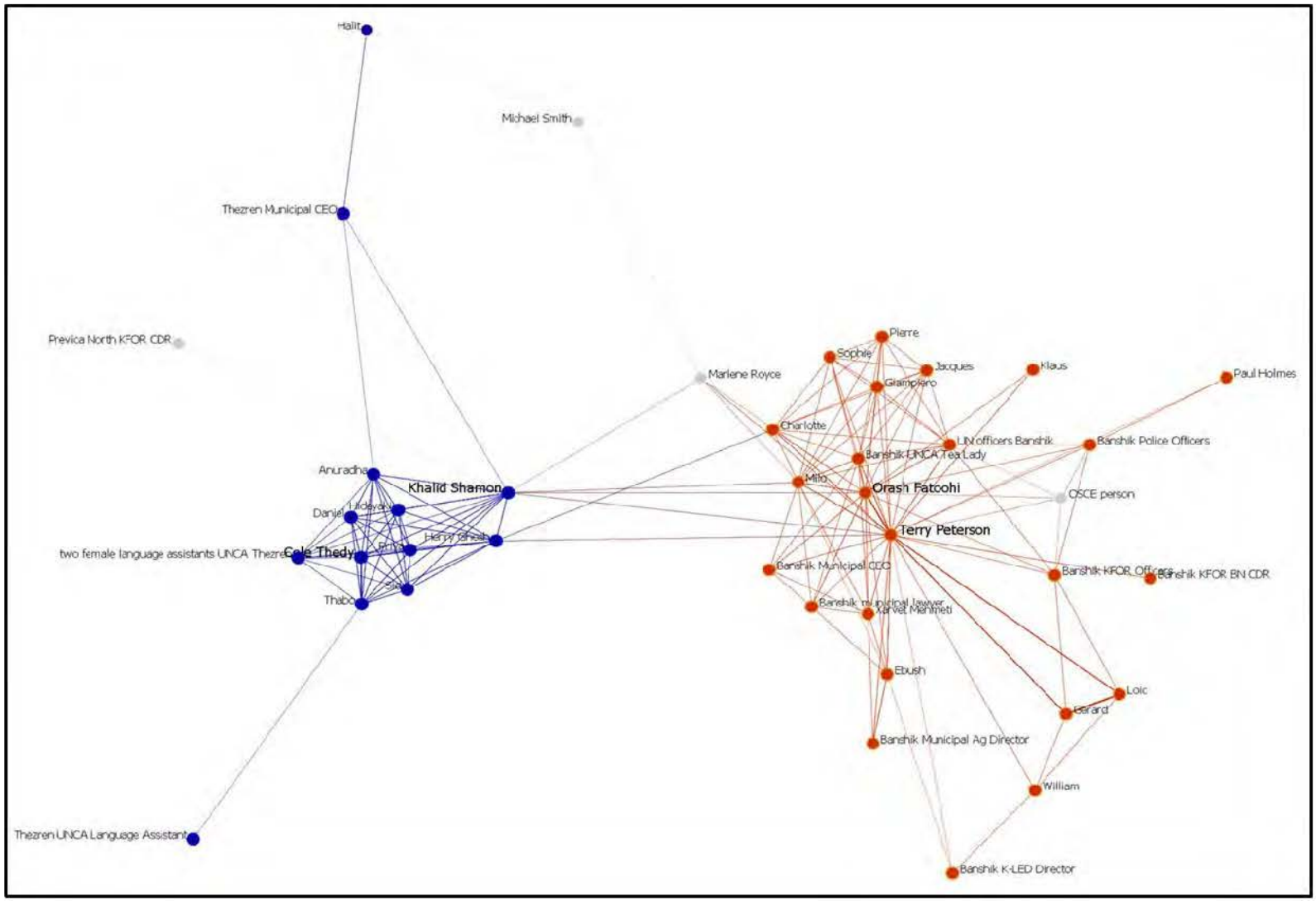


Figure 9. Aggregated Network

(9) Thezren and Banshik Aggregated Network Structures. The networks in Figures 10 and 11 are extractions by attribute (location) from the aggregated network. A visual inspection reveals that Banshik (right) is a more distributed network connecting more actors. Thezren (left) appears to be woven tightly around the UNCA organization with few external relationships. The sociogram indicates more openness of membership in the Banshik network, which increased the potential for an increased level of collaboration among diverse actors. These sociograms support Holohan's argument that the Banshik UNCA team enjoyed more success based on a wider net of collaboration throughout its area of operations.

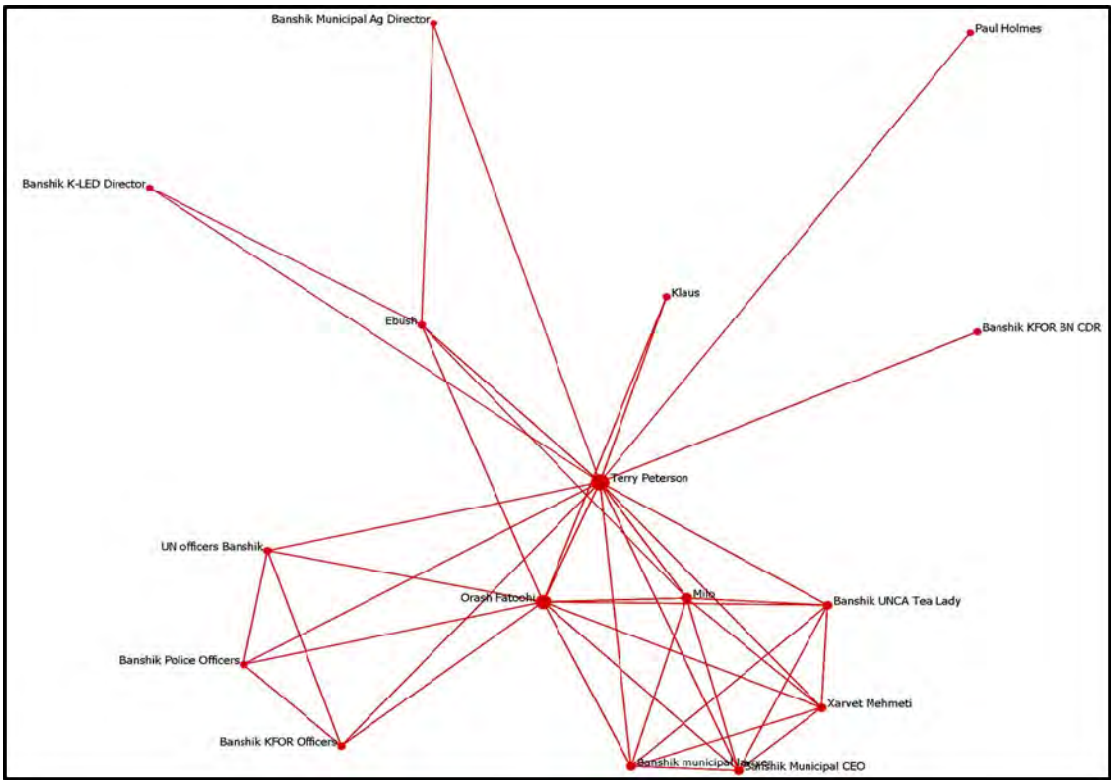


Figure 10. Banshik Aggregated Network

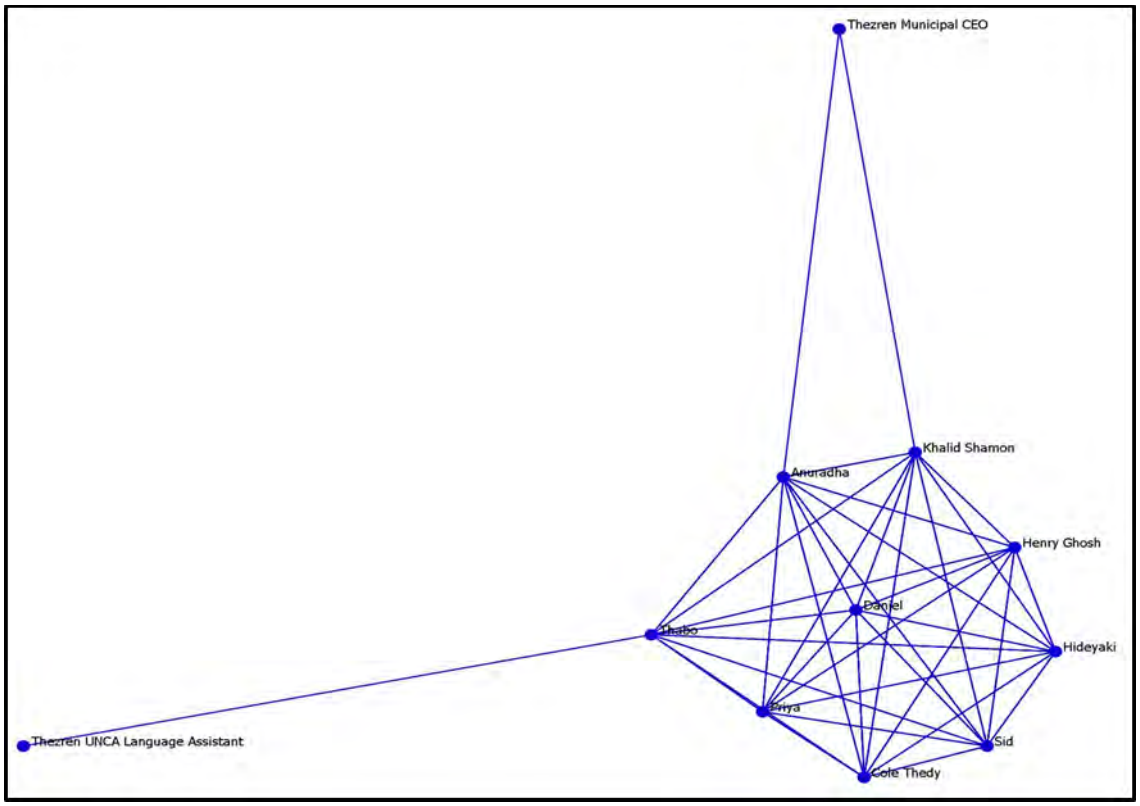


Figure 11. Thezren Aggregated Network

(10) Presentation of Network Level Measures. *Networks of Democracy* describes the UNCA Banshik team as collaborative and the Thezren team as stove piped.[207] SNA of the two networks also supports Holohan's position. From the narrative found in *Networks of Democracy*, 25 actors are identified as tied to the Banshik network while Thezren's only contains 13. The Banshik network has 88 ties, with a lower density resulting from a larger number of actors. A lower average degree, however, demonstrates that the UNCA team in Banshik is more collaborative outside the team itself, with external ties with the local community. Thezren's higher clustering coefficient[208] demonstrates that UNCA Thezren tends to have more internal than external ties. Network level measures; in general, support the position that UNCA Banshik functioned more

[207] Holohan, *Networks of Democracy: Lessons from Kosovo for Afghanistan, Iraq, and Beyond*.

[208] Clustering algorithms identify potential subgroups within a network. The most common is the clustering coefficient, which "measures the likelihood that two actors who share a tie with a third actor share a tie between themselves." Everton, *Disrupting Dark Networks*, 8403. See Chapter III.

toward the anarchic end of the design continuum while Thezren functioned as a bureaucracy (See Table 7).

Table 7. Banshik and Thezren Network Level Measures Comparison[209]

| Measure | Explanation | Banshik | Thezren |
|---|---|---|---|
| Actors | Number of nodes in the network | 25 | 13 |
| Link count | Number of ties between nodes | 88 | 84 |
| Density | The degree to which a network is connected | 0.141 | 0.497 |
| Clustering coefficient | The likelihood that two actors who share a tie with a third are also tied to each other | 0.540 | 0.925 |
| Diameter | The longest-shortest path in the network | 4 | 4 |
| Average Degree | The average number of ties that each actor in a network has | 9.040 | 13.077 |
| Degree centralization | Variance in centrality among actors in the network | 0.660 | 0.210 |

(11) Actor Level Measures. The different leadership styles and actions of the two UNCA teams can influence how the networks of organizations or inter-organizational networks take shape and perform. Actor level centrality measures provide insight into how the leaders' actions influence network performance. MA Peterson and DMA Fatoohi of the more successful Banshik team score first and second, respectively, in all centrality measures. Thezren MA Shamon scores consistently high and DMA Thedy generally scores toward the middle. MA and DMA actor level measures of centrality support the hypothesis that leadership greatly influences organizational performance in networking activities (See Table 8).

The narrative of *Networks of Democracy* anecdotally points out the factors that shape these network structures. Generally, Banshik is described as a friendly, informal, and collaborative environment while Thezren is guarded, formal, and stove piped. Examination of the effects of the social network on the overall structure can provide insight into how "friendly and informal" practices can influence the overall network structure and performance. Holohan says that Terry Peterson keeps an open door to

[209] Carley, *ORA.*

everyone at all times, whereas Khalid Shamon sees no one in his office without an appointment. As they are the highest-level leaders in their respective municipalities, their attitudes permeate the networks. In empirical terms, the effect of the social ties network on the rest of the Banshik network demonstrates the difference. MA Peterson hosted both the weekly dinners and the weekly social functions. This hosting not only provides insight into his leadership style and personality, but also demonstrates the leader's effect on the network. Peterson gains 24 ties from social events alone, and the network gains an additional 16 ties. In addition to adding 40 ties to the network, the social portion of the network strengthens ties because some ties are duplicated as both social and official ties. As discussed in Chapter III Methodology, stronger ties can indicate increased levels of trust. This potentially increased level of trust could explain the discrepancies in quality of collaboration reported in the respective Banshik and Thezren networks. Additionally, Peterson's diversity of ties is in line with his described attitude of openness, and his increased social ties throughout the network are supportive of the informality portrayed in the Banshik network.

Table 8. Actor–level Measure Comparison

| UNCA Banshik | | | | | | | | UNCA Thezren | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Degree Centrality | | Eigenvector Centrality | | Closeness Centrality | | Betweeness Centrality | | Degree Centrality | | Eigenvector Centrality | | Closeness Centrality | | Betweeness Centrality | |
| Agent | Value | Agent | Value | Agent | Value | Agent | Value | Agent | Value | Agent | Value | Agent | Value | Agent | Value |
| Terry Peterson | 0.207 | Terry Peterson | 0.866 | Paul Holmes | 0.017 | Terry Peterson | 0.149 | Cole Thedy | 0.28 | Cole Thedy | 0.569 | Thezren UNCA Language Assistant | 0.121 | Khalid Shamon | 0.072 |
| Orash Fatoohi | 0.153 | Orash Fatoohi | 0.774 | Terry Peterson | 0.016 | Orash Fatoohi | 0.079 | Thabo | 0.28 | Thabo | 0.523 | Khalid Shamon | 0.095 | Thabo | 0.068 |
| Milo | 0.073 | Milo | 0.447 | Orash Fatoohi | 0.016 | Ebush | 0.028 | Khalid Shamon | 0.267 | Khalid Shamon | 0.522 | Daniel | 0.094 | Anuradha | 0.065 |
| Banshik municipal lawyer | 0.053 | Xarvet Mehmeti | 0.304 | Ebush | 0.016 | Banshik municipal lawyer | 0.02 | Daniel | 0.253 | Daniel | 0.517 | Priya | 0.094 | Priya | 0.004 |
| Banshik UNCA Tea Lady | 0.053 | Banshik Municipal CEO | 0.304 | Banshik KFOR Officers | 0.016 | Banshik UNCA Tea Lady | 0.012 | Anuradha | 0.24 | Anuradha | 0.42 | Anuradha | 0.094 | Sid | 0.004 |
| Xarvet Mehmeti | 0.053 | Banshik UNCA Tea Lady | 0.255 | Banshik municipal lawyer | 0.016 | Xarvet Mehmeti | 0.008 | Priya | 0.227 | Priya | 0.411 | Sid | 0.094 | Hideyaki | 0.004 |
| Banshik Municipal CEO | 0.053 | Banshik municipal lawyer | 0.249 | UN officers Banshik | 0.016 | Banshik Municipal CEO | 0.008 | Sid | 0.227 | Sid | 0.411 | Hideyaki | 0.094 | Henry Ghosh | 0.004 |
| Banshik KFOR Officers | 0.033 | Ebush | 0.194 | Banshik Police Officers | 0.016 | Milo | 0.007 | Hideyaki | 0.227 | Hideyaki | 0.411 | Henry Ghosh | 0.094 | Daniel | 0.002 |
| UN officers Banshik | 0.033 | Klaus | 0.168 | Xarvet Mehmeti | 0.016 | Banshik Municipal Ag Director | 0.004 | Henry Ghosh | 0.227 | Henry Ghosh | 0.411 | Thabo | 0.094 | N/A | N/A |
| Banshik Police Officers | 0.033 | Banshik KFOR Officers | 0.127 | Banshik Municipal CEO | 0.016 | Banshik KFOR Officers | 0.003 | Thezren Municipal CEO | 0.027 | Thezren Municipal CEO | 0.092 | Cole Thedy | 0.093 | N/A | N/A |

(12) Inter-organizational Networks. Organization-to-organization relations can shed additional light on the network structure in Banshik and Thezren. Since the authors' nominalist approach[210] is based on a finite amount of data from a limited first-hand account of events, some phenomena can only be examined through the organization-to-organization level (Figure 12) because these phenomena were only described at the organizational level. Holohan describes two critical incidents that are particular to the organizational level of analysis—the small riot—and the water pipeline dispute detailed as follows. Ties formed during these two events affected the structure of the Banshik network. In Figure 12, ties gained from these activities are colored blue. In addition, Table 9 displays the network level measures of Banshik with the ties formed in responding to critical incidents, Banshik without the ties formed from these critical incidents, and Thezren's organizational level ties.

[210] A nominalist approach means that the observer or analyst chose which actors belong in the network, as opposed to the realist approach in which actors are asked to explain the network to which they belong.

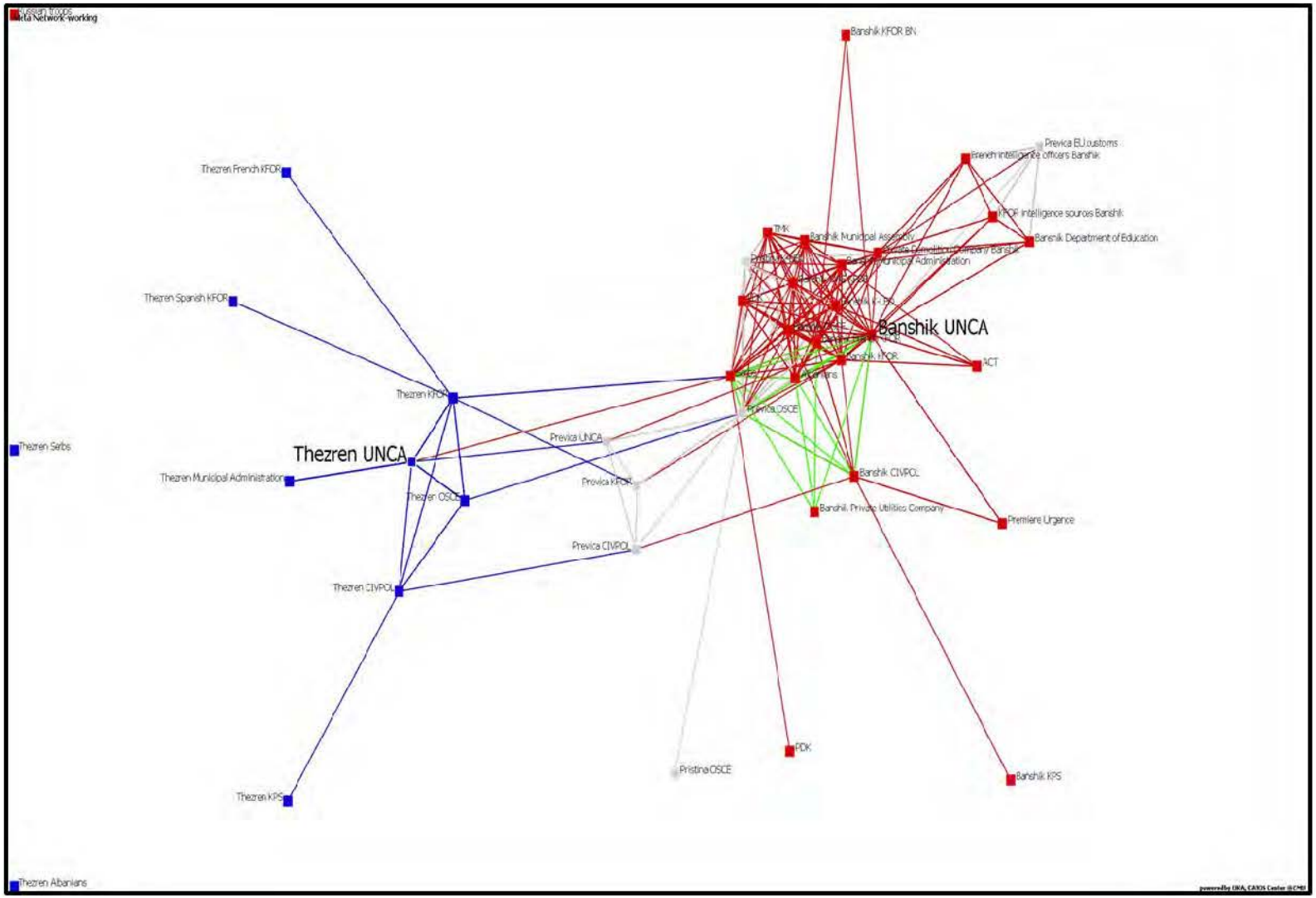


Figure 12. Organizational Level of Analysis

Table 9. Organizational-level Network Topography metrics[211]

| Measure | Banshik With Critical Incidents included | Banshik Without Critical Incidents included | Thezren |
|---|---|---|---|
| Organizations | 24 | 24 | 10 |
| Link Count | 75 | 52 | 19 |
| Diameter | 5 | 7 | 5 |
| Density | 0.13 | 0.09 | 0.19 |
| Average Degree | 0.042 | 0.044 | 0.08 |
| Average Path Distance | 2.822 | 3.09 | 2.36 |
| Clustering Coefficient | 0.752 | 0.631 | 0.39 |
| Fragmentation | 0.083 | 0.163 | 0.667 |

From the narrative, 24 organizations are identified as tied to the Banshik network while Thezren only contains 10 ties. That Banshik managed to collaborate with twice as many organizations is an indicator of a more collaborative approach. The Banshik network has 75 ties, with a lower density resulting from a larger number of actors. Even with twice as many nodes, the scores are close. A lower average degree, however, demonstrates that the UNCA team in Banshik is more collaborative outside the team itself, with external ties with the local community. Thezren has few ties to organizations outside of the IGO community. The most notable ties missing are any ties into the Serbian or Albanian communities. Network level measures, in general, support the position that UNCA Banshik functioned more as an inter-organizational network while Thezren functioned more as an organized network or bureaucracy.

Organizational participation in critical incidents is a key difference between Banshik and Thezren. UNCA Banshik participation in resolving critical incidents reveals differences in leadership and their effects on network structure. The first incident was a small riot that occurred in the predominately Serbian village of Palaj. MA Terry Peterson of UNCA Banshik travelled to the village and set up a conference between the villagers, UNCA, the police, and KFOR.[212] It is important to mention that the police were

[211] Carley, *ORA.*

[212] Holohan, *Networks of Democracy: Lessons from Kosovo for Afghanistan, Iraq, and Beyond*, 58.

technically in charge of quelling the riot and maintaining order in the village, but Peterson took action anyway. More importantly, all parties respected his action and followed his lead. Ultimately, a meeting between these groups became a regular event. The second incident involved a dispute over a water pipeline. French KFOR (French contingent as part of Kosovo Forces, a NATO-led international peace keeping force) was responsible for the operation, but an Albanian leader petitioned UNCA Banshik to intervene. Peterson held a meeting at which the participants (KFOR, Serbs, Albanians) could find their own resolution.[213] This meeting also endured. These two leadership actions created an additional 23 ties within the 24 organizations of Banshik. They also decreased the diameter of the network from seven to five. The most important implication in this context is that they doubled the strength of ties between the Serb and Albanian groups. Through both incidents, Serbs and Albanians worked together to solve problems peacefully. Node-level metrics support the leadership styles observed by Holohan in her description of the cases.

Organizational (node) level centrality measures can give insight into how the leaders' actions influence their organizations' performance within the networks. UNCA Banshik scores highest in total degree, eigenvector, and closeness centrality measures. UNCA Thezren scores consistently high in centrality measure as well, but raw total degree centrality and clique membership scores illuminate a difference between the two organizations. UNCA Banshik holds three times as many ties as UNCA Thezren. More importantly, as the UNCA teams' mission is to bring the communities together, it is possible to see how involved each UNCA office is with different members of the international and host nation communities. "A clique is defined as a group of three or more actors that have many connections to each other and relatively fewer connections to those in other groups."[214] UNCA Banshik has 10 cliques, while UNCA Thezren is a member of only one clique. A higher number of ties and membership in 10 times as many cliques indicates that UNCA Banshik is reaching into the community much more

[213] Holohan, *Networks of Democracy: Lessons from Kosovo for Afghanistan, Iraq, and Beyond*, 59.

[214] Everton, *Disrupting Dark Networks*, 8392.

effectively than UNCA Thezren. Node-level metrics at the organizational level support Holohan's thesis that UNCA Banshik was an integral part of the network as the mandate implied, while UNCA Thezren was not. (See Table 10)

Table 10. Organizational-Level Actor Metrics[215]

| Banshik | | | | | | | | Thezren | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Degree Centrality | | Eigenvector Centrality | | Closeness Centrality | | Betweeness Centrality | | Degree Centrality | | Eigenvector Centrality | | Closeness Centrality | | Betweeness Centrality | |
| Agent | Value | Agent | Value | Agent | Value | Agent | Value | Agent | Value | Agent | Value | Agent | Value | Agent | Value |
| Banshik UNCA | 0.285 (67) | Banshik UNCA | 0.873 | ACT | 0.026 | Banshik UNCA | 0.416 | Thezren UNCA | 0.276 (21) | Thezren UNCA | 0.972 | Thezren KPS | 0.053 | Thezren CIVPOL | 0.153 |
| Banshik French KFOR | 0.128 (30) | Banshik French KFOR | 0.608 | TMK | 0.026 | Banshik Private Utilities Company | 0.128 | Thezren KFOR | 0.197 (15) | Thezren KFOR | 0.773 | Thezren CIVPOL | 0.044 | Thezren UNCA | 0.097 |
| Serbs | 0.094 (22) | Serbs | 0.446 | PDK | 0.026 | Banshik CIVPOL | 0.069 | Thezren OSCE | 0.145 (11) | Thezren OSCE | 0.491 | Thezren UNCA | 0.043 | - | - |
| Albanians | 0.089 (21) | Albanians | 0.395 | Banshik KPS | 0.026 | Albanians | 0.061 | Thezren CIVPOL | 0.092 (7) | Thezren Municipal Administration | 0.382 | Thezren KFOR | 0.043 | - | - |
| Banshik CIVPOL | 0.077 (18) | Banshik CIVPOL | 0.374 | Private Demolition Company Banshik | 0.026 | Serbs | 0.045 | Thezren Municipal Administration | 0.079 (6) | Thezren CIVPOL | 0.262 | Thezren OSCE | 0.043 | - | - |

[215] Carley, *ORA*.

(13) Comparison of Potential for Influence. SNA can also support the idea that each UNCA's leadership heavily influenced network performance. *In Networks of Democracy*,[216] Holohan identifies the differences between Banshik and Thezren, and implies that the leadership means the difference between success and failure. The assumption that "an actor's position in the social structure (i.e., its structural location) impacts its beliefs, norms, and observed behavior" is pertinent to this idea.[217] This assumption implies that an actor is more likely to adopt beliefs or attitudes if people surrounding the actor hold those beliefs or attitudes. Social network analysts have developed algorithms to test this hypothesis empirically. ORA's micro simulation tool is used to simulate each leader's ability to diffuse ideas throughout the network.

In this hypothetical scenario, each UNCA leader's potential to influence the rest of his respective network was compared. ORA's micro simulation tool enables the user to simulate types of flows through a network. Using it, a simulation of the diffusion of an ideology was conducted starting with Khalid Shamon in the Thezren aggregated network and with Terry Peterson in the Banshik aggregated network. An arbitrary resistance level of 0.3 was used based on the assumption that a 30% chance of members accepting a leader's ideology is reasonable. The time periods selected are arbitrary. The micro-simulation sociograms seen in Figures 13 and 14 depict snapshots by time period of actors who accept the idea in green, actors who are transmitting the idea in blue, and actors who have not accepted the idea in red.

[216] Holohan, *Networks of Democracy: Lessons from Kosovo for Afghanistan, Iraq, and Beyond*.

[217] Everton, *Disrupting Dark Networks*, 1025.

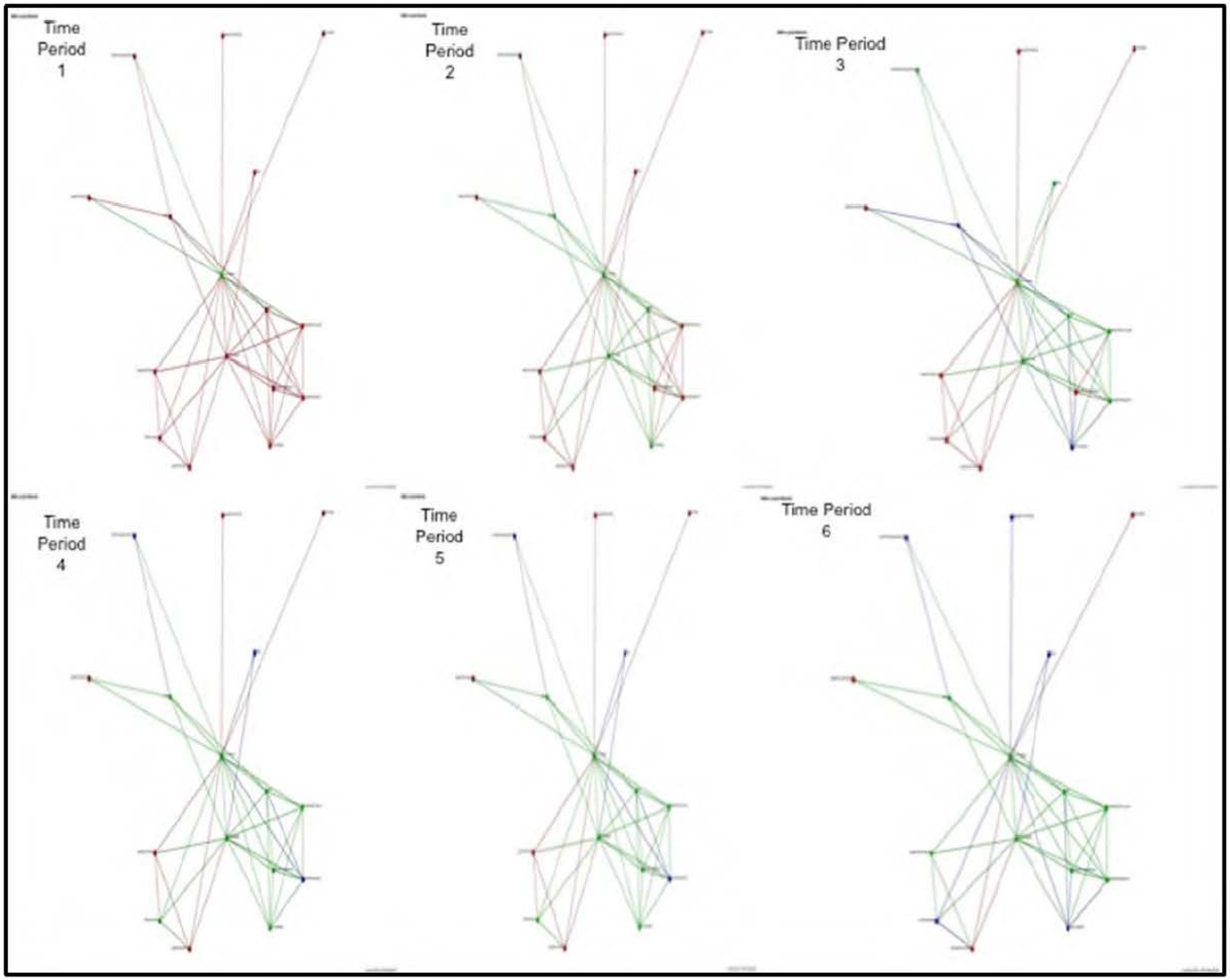


Figure 13. Diffusion of Ideas Banshik

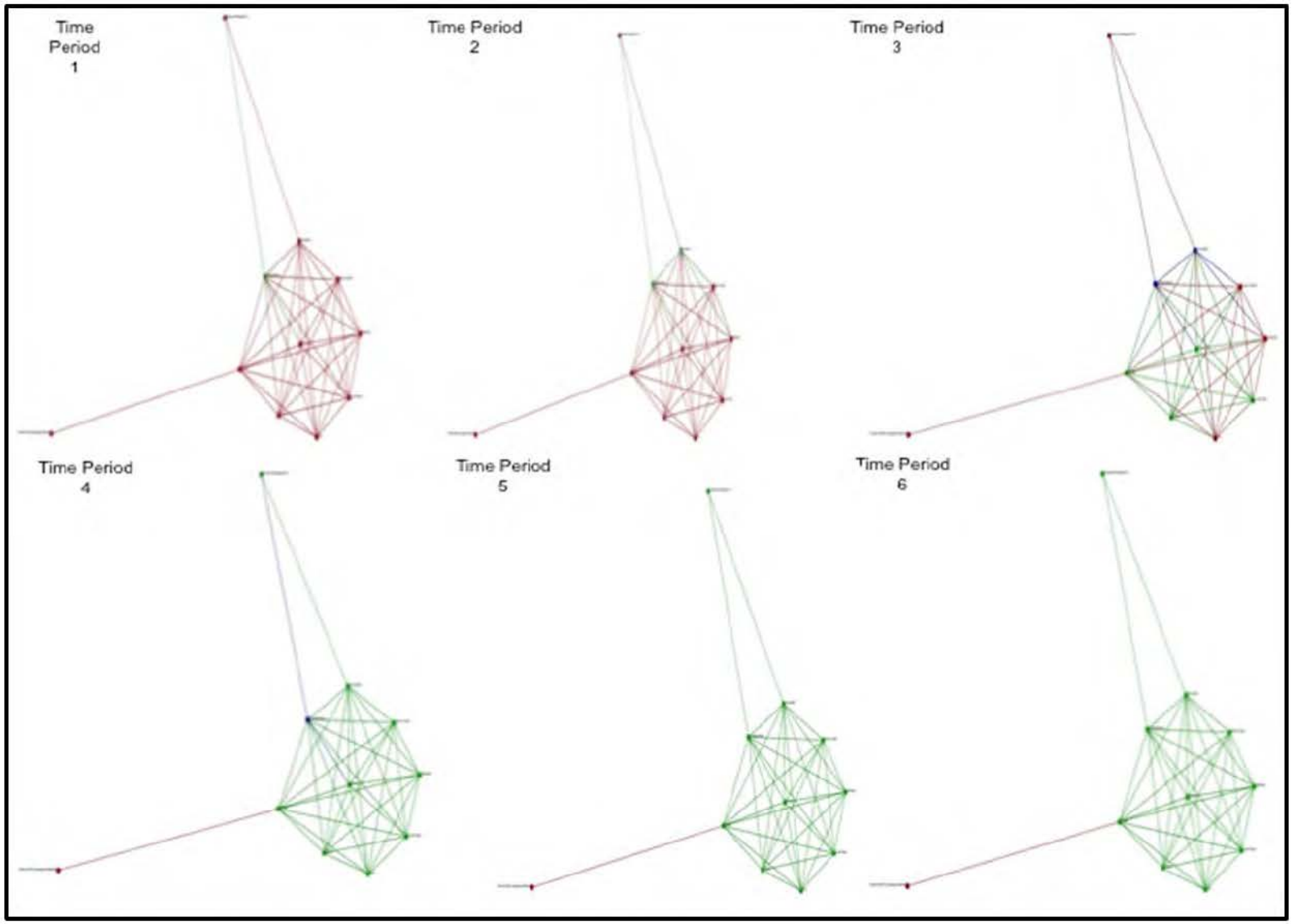


Figure 14. Diffusion of Ideas Thezren

At a glance, comparison of how each leader can diffuse an idea does not reveal a significant difference. Both networks appear to be mostly green by Time Period 4, with just a few peripheral nodes not having accepted the idea. However, the speed of diffusion to the entire network does not provide a comprehensive understanding of the network structure. By looking closer, it can be seen that actors from the host nation, commercial, and military communities have accepted the idea by Time Period three in Banshik. Everyone in Banshik has accepted the idea by time period six. In Thezren, only two ties reach outside of the IGO community. One actor accepts the idea in time period four, and the other peripheral actor does not accept the idea through time period six. However, total diffusion of the idea is only one time period apart between the networks. This simulation reveals that each leader diffuses his ideology rapidly within his own organization, but Peterson's ideology reaches outside of UNCA Banshik more effectively.

Peterson's position appears to provide more leverage potential for the diffusion of ideas than Shamon's. As the blue lines represent a retransmission of the idea, the Banshik network displays many more. Through one weekly IGO meeting, Shamon transmits the idea directly to all other IGO members in the network. Then, it takes an additional four time periods to reach outside of the IGO community. In Banshik, Peterson transfers the idea to only three actors in the second Time Period, but through retransmission reaches into the host nation, commercial, and military communities by time period three. The difference is due to the Banshik network maintaining multiple ties into other communities, while Thezren's network does not. In the context of the UN mandate in which they are operating, the leverage potential of Peterson's position appears to be superior.

### 3. Results

#### *a. Culture*

Banshik and Thezren demonstrated the development of different cultures. Banshik's culture was more open and inclusive, and Thezren's was based on authority. One indicator of the levels of inclusiveness is the use of local-hire language assistants. In Banshik, the language assistants shared an office with their UNCA counterparts, while in

Thezren, the language assistants were in a separate part of the building.[218] In Banshik, people behaved in a very collaborative fashion that bore out their values of diverse experiences and knowledge. This behavior can be seen in the manner in which UNCA Banshik valued diverse stakeholders' contributions, such as chief language assistant Milo who provided useful character assessments of local actors.[219] They had a culture of informal yet proactive involvement in the day-to-day events and critical incidents in the municipality, which aided in collaboration. In Thezren, people behaved in an isolated fashion, which reflected their value of internal organizational capabilities over external network capabilities. Their views are exemplified in Shamon's warning to Thabo about sharing office space with local language assistants (Thabo was the only one in Thezren to do so), by telling him to "keep your distance from the local people. We have standards to keep [up]."[220] Accordingly, Thezren operated unilaterally as an organization separate from other stakeholders. Overall, they had a detached culture that limited them to formal routine involvement in the day-to-day events of the municipality and restricted collaboration.

### *b. Outputs and Outcomes*

Outputs and outcomes, the performance results in Banshik and Thezren, could be described as mirror images of each other. Banshik was able to reconstruct houses, revive utilities services, improve local industrial capacity, and politically engage Serbs and Kosovars. These outputs resulted in permanent housing for municipality residents, water availability, operation of all five pre-war factories, and zero deaths from inter-ethnic violence in 2001. Thezren faltered in the reconstruction of housing, utilities, and industry, and was politically disengaged. Thezren's outcomes were hundreds of families living in tents, only sporadic water availability in late 2001, zero functionality of its three pre-war

[218] Holohan, *Networks of Democracy: Lessons from Kosovo for Afghanistan, Iraq, and Beyond*, 54–55.

[219] Ibid., 81.

[220] Ibid., 77.

factories, former Albanian fighter dominance in municipal politics, and several inter-ethnic related homicides.[221]

This section examined the structure of each network through SNA to identify how each network's structure (throughput) fits with its inputs and results within the systems framework. While both teams had similar inputs, the outputs varied greatly. Banshik achieved the desired output, while Thezren did not. Description of the network structure gives insight into its potential, and in turn, provides a starting point for understanding a network's location on the design continuum. Next, insights from the systems framework and from SNA are used to analyze the design of each network.

## C. NETWORK DESIGN, ITS TENSIONS AND MISFITS

The above analysis used the systems framework to describe and analyze the network inputs (network environment and purpose), throughputs (people, jobs/tasks, processes, structure), and results (culture, outputs and outcomes). The authors probed deeply into the network structures using SNA at the individual and organizational level of analysis. The Network Design Continuum is discussed next, and drawing from their systems framework and SNA analysis, each network was located on the continuum. The end result is an overarching assessment of how well their design elements form a coherent configuration that fits with its environment and fits with their purpose.

Network design is defined as "a constellation of a network's elements that in combination describe the network as a whole."[222] The network design continuum provides a framework to describe networks in terms of their position on a continuum between "anarchic networks and organized networks"[223] that can be characterized by four dimensions: the position between unbounded to bounded membership, informal to formal interactions, heterarchical to hierarchical coordination, and shared to centralized governance. The anarchic network configuration resides at the left end of the spectrum

[221] Holohan, "Webs Not Walls: International Organizations as Networks and Hierarchies in Kosovo," 5.

[222] Roberts, "Network Design: A Conceptual Presentation."

[223] Ibid.

and is characterized by unbounded, informal, heterarchical, and shared governance relations. The organized network configuration resides at the right side of the spectrum and is characterized by bounded, formal, and hierarchical, centralized governance relations. (See Figure 15)

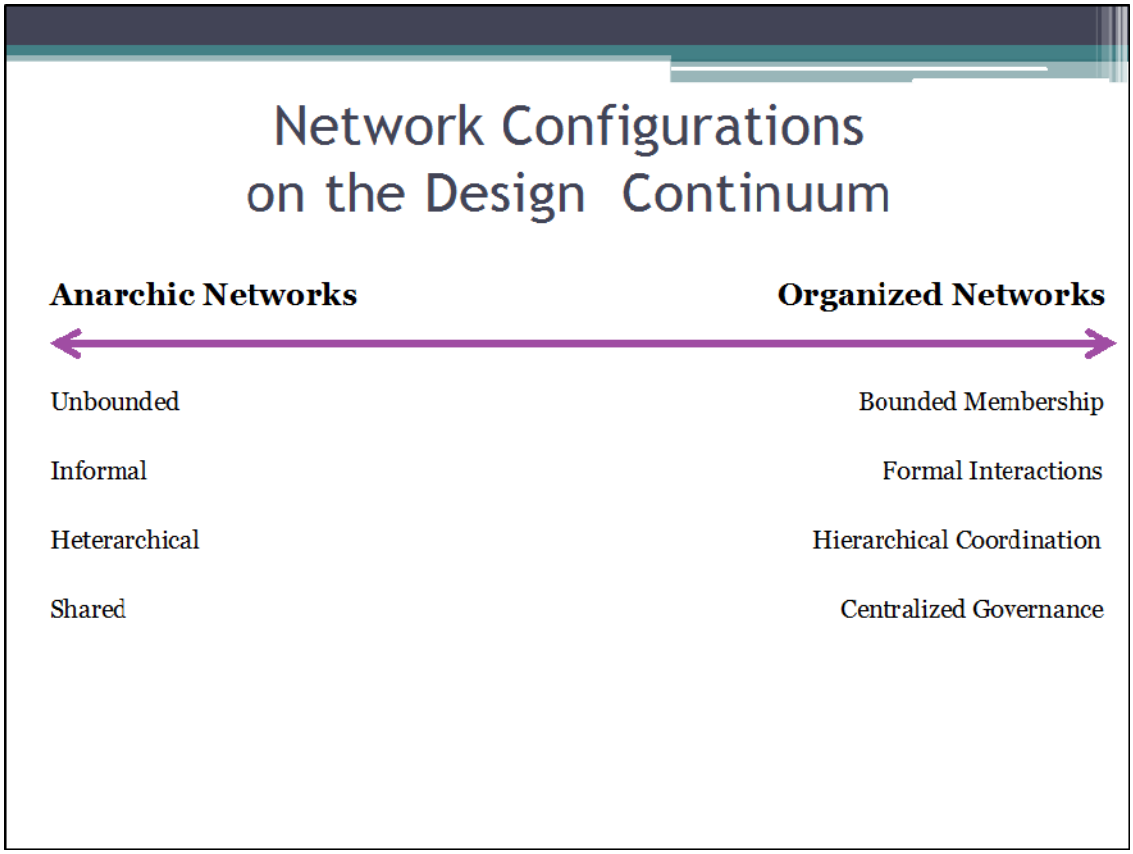


Figure 15. Network Configurations on the Design Continuum

The authors' analysis using the systems framework, as observed in the Jobs and tasks subcomponent of throughputs, indicates that the Banshik network interacted through informal meetings and informal engagement with all actors. Thus, the Banshik network is placed towards the left end (informal) of the formality dimension of the design continuum. Observations of Thezren's jobs and tasks reveal that Thezren's meetings and engagements were rigid and formal that place it on the right side (formal) of the formality dimension. Likewise, a cultural comparison suggests the Banshik network placed equal value on actors within the formal organization and diverse local actors outside the

organization. The Banshik network is thus placed more towards the left end (unbounded membership and heterarchical coordination) in the membership and coordination dimensions of the design continuum. Thezren's culture placed higher value on actors that were in formal organizational roles and peers who had comparable status in other organizations. These observations place the Thezren network towards the right end (bounded membership and hierarchical coordination) in the membership and coordination dimensions.

The authors' SNA provided helpful insights for determining each network's position along the design continuum in terms of the four dimensions. SNA metrics indicate a more diverse Banshik network that places it closer to the left (unbounded membership) end of the membership dimension than Thezren. Banshik leadership's higher centrality scores in the social network and the social network's impact on the aggregated network's structure indicate a low degree of formality in the Banshik network that places it towards the left (informal) end of the formality dimension. Thezren leadership's absence from the social ties network and the social ties network's minimal impact on Thezren's aggregated structure indicate a higher degree of formality, which places the network on the right (formal) end of the dimension. Banshik's lower centralization scores in both the individual and organization networks reveal heterarchical and shared governance tendencies, and thus, position it toward the left end of the design continuum. Thezren's higher centralization scores in the individual and organizational networks suggest a hierarchical tendency and centralized governance that places the network towards the right end (hierarchical and centralized) of the coordination and governance dimensions.

Overall, the systems framework and SNA indicate that the network in Banshik looked more like an anarchic network configuration, while Thezren functioned closer to an organized network configuration. UNCA Banshik took the lead in a network that was more inclusive in its membership, informal in its interactions, heterarchial in its coordination, and shared in its governance. In comparison, the Thezren network resembled a network with bounded membership, formal interactions, hierarchical coordination, and centralized governance.

Banshik's anarchic network configuration was an appropriate fit for its environment and purpose. This network included a wide array of members with valuable contributions in terms of knowledge and experience. Additionally, the Banshik network's informal interactions encouraged genuine participation that was not stifled by formalities. Furthermore, the heterarchical coordination in Banshik enabled the rapid exchange of information among disparate actors. These characteristics allowed the network to respond rapidly to the complex and volatile nature of the post-conflict environment, which aided in the achievement of the goals of the international intervention: institution building, democratization, and reconstruction.

In contrast to Banshik, Thezren's organized network configuration was a misfit for the environment and purpose. Thezren's network was unofficially restricted to personnel of similar status and background, which limited the range of intellectual contribution to the network. Formal interactions throughout the Thezren network discouraged sincere involvement in collective problem solving. Additionally, the hierarchical coordination that occurred in the Thezren network stovepiped the flow of information. These characteristics delayed the Thezren network's response to its chaotic environment and frustrated its achievement of the international intervention's goals.

The systems framework provided an overall sense of the Banshik and Thezren networks. SNA allowed a more in-depth examination of the Banshik and Thezren network structures. Together, they led us to conclude that UNCA Banshik developed the appropriate network design, whereas UNCA Thezren did not. However, the authors believe it was possible to learn more in their comparison of these two networks. Chapter V provides a more in-depth analysis of the people's activities and interactions.

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# V. CASE ANALYSIS II, ACTIVITY ANALYSIS

Chapter IV established that Banshik had developed the appropriate network design for its environment and purpose, whereas UNCA Thezren had not. This chapter delves deeper into the network to explore how the actors and their interactions may have led to differences in network design. This analysis begins with the results of the authors' coding and the creation of two general categories, WA and KSA. From this analysis, the factors believe to have contributed to the design differences between Banshik and Thezren are extracted, which ultimately, led to the networks' different results.

## A. INITIAL CODING OF WORK ACTIVITIES AND KNOWLEDGE, SKILLS, AND ABILITIES

The team coded 178 pages from Anne Holohan *Networks of Democracy* using a coding scheme of 95 categories from O*NET[224] that consisted of 36 work activities categories, 18 knowledge categories, 25 skills categories, and 16 abilities categories (See the Appendix for definitions of all categories). Thirty-four of the initial 95 categories of the coding scheme were not observed in the team's cases; therefore, they were not coded. The coding resulted in 717 coded instances of which 30% represented UNCA Thezren and 70% represented UNCA Banshik (see Figure 16). Although a 30% to 70% split occurs in the amount of coding between UNCA Thezren and UNCA Banshik, the distribution of coded WA and KSA within each case is comparable as seen in Figures 17 and 18. The 717 coded instances were coded across 61 categories consisting of 24 WA categories (see Table 11), 10 knowledge categories (see Table 12), 18 skills categories (see Table 13), and nine abilities (see Table 14).

[224] "About O*Net."

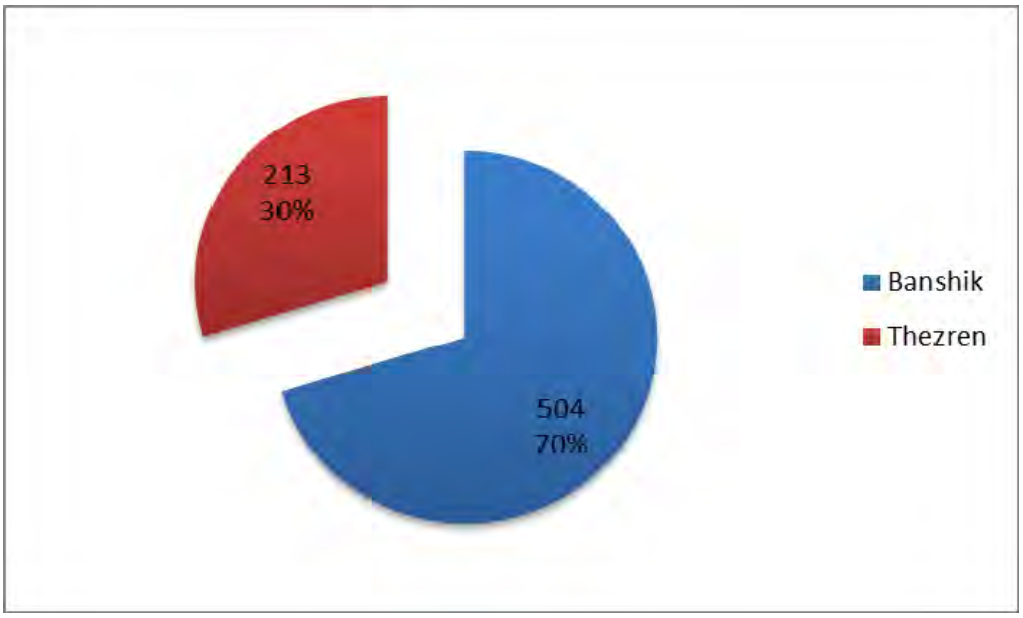


Figure 16. Total Coded Instances

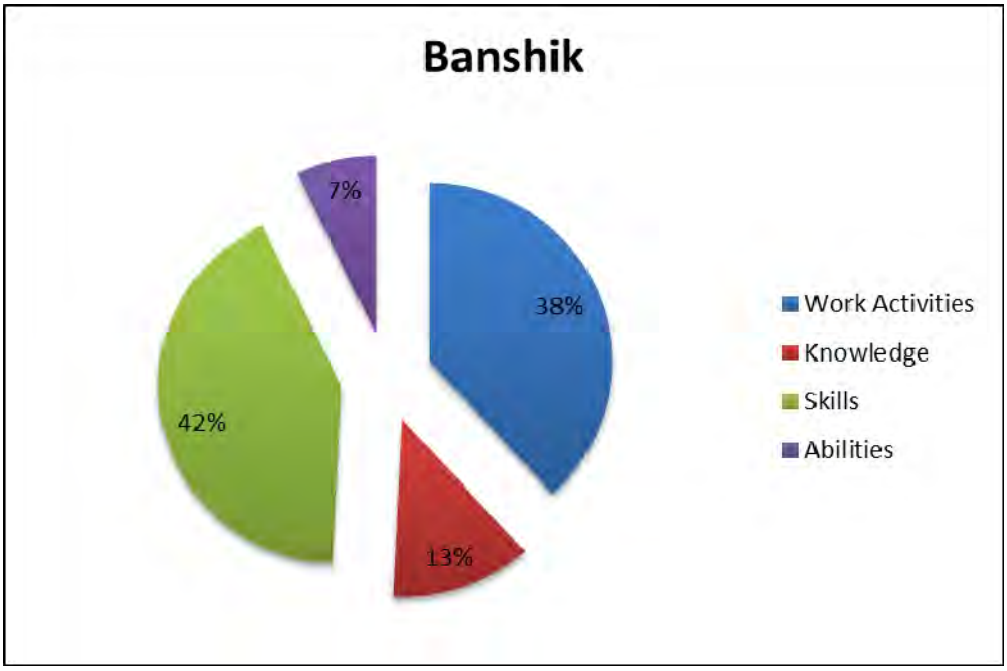


Figure 17. Banshik Coding Percentage

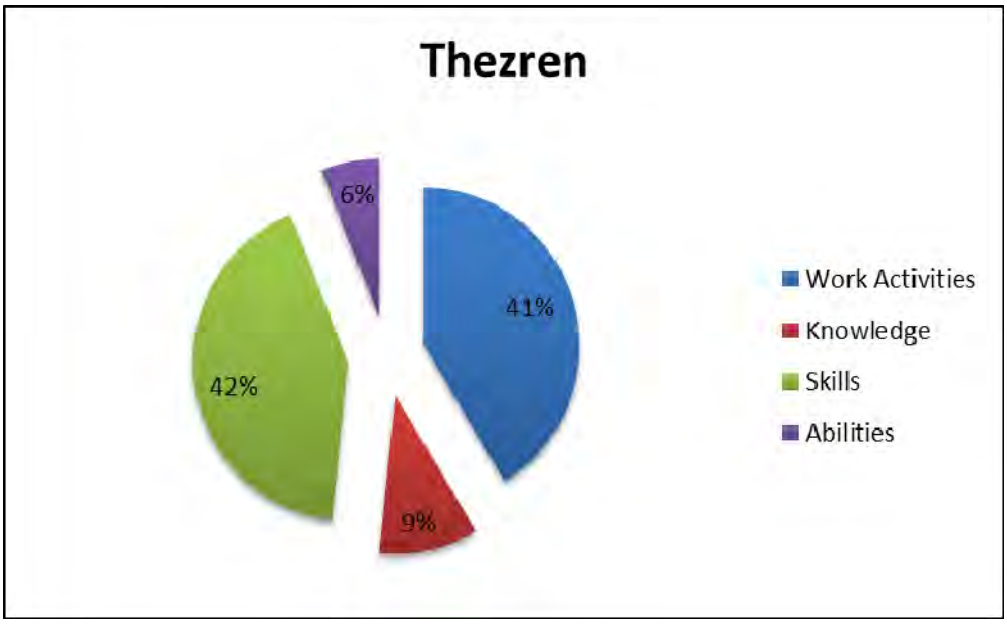


Figure 18. Thezren Coding Percentage

The study team also relied on career experience to assign either a value of +1 or -1 to each coded instance, depending on whether the instance was a successful demonstration of a category or whether the instance was a failed demonstration of a category. For example, if a passage of text demonstrated actors' successful execution of service orientation[225] skill by choosing to live in the municipality they were servicing to be more available as a UN civil administrator, then that instance was coded with a value of positive one for service orientation. Likewise, if UN civil administrators chose to live outside the municipality they were servicing, based on personal preference, then that instance was coded as a negative instance of service orientation, and was assigned a value of negative one.

[225] "O*NET Skills." Service Orientation is defined as "actively looking for ways to help people."

Table 11. Work Activities[226]

| Work Activities | General types of job behaviors occurring on multiple jobs | Instances | |
|---|---|---|---|
| | | Banshik | Thezren |
| Work Activities—Information Input | Where and how are the information and data gained that are needed to perform this job? | | |
| Getting Information | Observing, receiving, and otherwise obtaining information from all relevant sources. | 17 | -6 |
| Work Activities—Mental Processes | What processing, planning, problem-solving, decision-making, and innovating activities are performed with job-relevant information? | | |
| Thinking Creatively | Developing, designing, or creating new applications, ideas, relationships, systems, or products, including artistic contributions. | 23 | -7 |
| Scheduling Work and Activities | Scheduling events, programs, and activities, as well as the work of others. | 0 | -1 |
| Processing Information | Compiling, coding, categorizing, calculating, tabulating, auditing, or verifying information or data. | 1 | 0 |
| Organizing, Planning, and Prioritizing Work | Developing specific goals and plans to prioritize, organize, and accomplish your work. | 2 | -1 |
| Making Decisions and Solving Problems | Analyzing information and evaluating results to choose the best solution and solve problems. | 2 | 0 |
| Judging the Qualities of Things, Services, or People | Assessing the value, importance, or quality of things or people. | 25 | -11 |
| Evaluating Information to Determine Compliance with Standards | Using relevant information and individual judgment to determine whether events or processes comply with laws, regulations, or standards. | 1 | 0 |
| Developing Objectives and Strategies | Establishing long-range objectives and specifying the strategies and actions to achieve them. | 9 | -1 |
| Analyzing Data or Information | Identifying the underlying principles, reasons, or facts of information by breaking down information or data into separate parts. | 1 | -2 |
| Work Activities—Interacting With Others | What interactions with other persons or supervisory activities occur while performing this job? | | |
| Training and Teaching Others | Identifying the educational needs of others, developing formal educational or training programs or classes, and teaching or instructing others. | 1 | 0 |
| Selling or Influencing Others | Convincing others to buy merchandise/goods or to otherwise change their minds or actions. | 6 | 0 |
| Resolving Conflicts and Negotiating with Others | Handling complaints, settling disputes, and resolving grievances and conflicts, or otherwise negotiating with others. | 3 | -2 |
| Provide Consultation and Advice to Others | Providing guidance and expert advice to management or other groups on technical, systems-, or process-related topics. | 1 | 0 |

[226] "O*NET Work Activities."

| Work Activities | General types of job behaviors occurring on multiple jobs | Instances | |
|---|---|---|---|
| | | Banshik | Thezren |
| Performing for or Working Directly with the Public | Performing for people or dealing directly with the public. This includes serving customers in restaurants and stores, and receiving clients or guests | 1 | -1 |
| Performing Administrative Activities | Performing day-to-day administrative tasks such as maintaining information files and processing paperwork. | 2 | -1 |
| Guiding, Directing, and Motivating Subordinates | Providing guidance and direction to subordinates, including setting performance standards and monitoring performance. | 0 | -1 |
| Establishing and Maintaining Interpersonal Relationships | Developing constructive and cooperative working relationships with others, and maintaining them over time. | 27 | -14 |
| Developing and Building Teams | Encouraging and building mutual trust, respect, and cooperation among team members. | 12 | -11 |
| Communicating with Supervisors, Peers, or Subordinates | Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person. | 8 | -3 |
| Communicating with Persons Outside Organization | Communicating with people outside the organization, representing the organization to customers, the public, government, and other external sources. This information can be exchanged in person, in writing, or by telephone or e-mail. | 36 | -18 |
| Coordinating the Work and Activities of Others | Getting members of a group to work together to accomplish tasks. | 4 | -4 |
| Coaching and Developing Others | Identifying the developmental needs of others and coaching, mentoring, or otherwise helping others to improve their knowledge or skills. | 7 | -4 |
| Assisting and Caring for Others | Providing personal assistance, medical attention, emotional support, or other personal care to others such as coworkers, customers, or patients. | 4 | 0 |

Table 12. Knowledge

| Knowledge | Organized sets of principles and facts applying in general domains | Instances | |
|---|---|---|---|
| | | Banshik | Thezren |
| Administration and Management | Knowledge of business and management principles involved in strategic planning, resource allocation, human resources modeling, leadership technique, production methods, and coordination of people and resources. | 13 | -9 |
| Communications and Media | Knowledge of media production, communication, and dissemination techniques and methods. This includes alternative ways to inform and entertain via written, oral, and visual media. | 3 | 0 |

| Knowledge | Organized sets of principles and facts applying in general domains | Instances | |
|---|---|---|---|
| | | Banshik | Thezren |
| Computers and Electronics | Knowledge of circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming. | 1 | -2 |
| Design Thinking | The ability to follow an "inherently optimistic, constructive, and experiential" approach that "addresses the needs of the people who will consume a product or service and the infrastructure that enables it."227 | 17 | -7 |
| Economics and Accounting | Knowledge of economic and accounting principles and practices, the financial markets, banking and the analysis and reporting of financial data. | 1 | -2 |
| History and Archeology | Knowledge of historical events and their causes, indicators, and effects on civilizations and cultures. | 3 | 0 |
| Law and Government | Knowledge of laws, legal codes, court procedures, precedents, government regulations, executive orders, agency rules, and the democratic political process. | 7 | -1 |
| Psychology | Knowledge of human behavior and performance; individual differences in ability, personality, and interests; learning and motivation; psychological research methods; and the assessment and treatment of behavioral and affective disorders. | 1 | 0 |
| Public Safety and Security | Knowledge of relevant equipment, policies, procedures, and strategies to promote effective local, state, or national security operations for the protection of people, data, property, and institutions. | 8 | -2 |
| Sociology and Anthropology | Knowledge of group behavior and dynamics, societal trends and influences, human migrations, ethnicity, cultures and their history and origins. | 9 | 1 |

Table 13. Skills

| Skills | Developed capacities that facilitate learning or the more rapid acquisition of knowledge | Instances | |
|---|---|---|---|
| | | Banshik | Thezren |
| Basic Skills | Developed capacities that facilitate learning or the more rapid acquisition of knowledge | | |
| Critical Thinking | Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems. | 9 | 0 |

227 Tim Brown and Jocelyn Wyatt, "Design Thinking for Social Innovation," *Stanford Social Innovation Review*, 32 (Winter 2010): 32.

| Skills | Developed capacities that facilitate learning or the more rapid acquisition of knowledge | Instances | |
|---|---|---|---|
| | | Banshik | Thezren |
| Active Learning | Understanding the implications of new information for both current and future problem solving and decision making. | 17 | -4 |
| Active Listening | Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times. | 4 | -3 |
| Learning Strategies | Selecting and using training/instructional methods and procedures appropriate for the situation when learning or teaching new things. | 3 | 0 |
| Monitoring | Monitoring/Assessing performance of yourself, other individuals, or organizations to make improvements or take corrective action. | 2 | -2 |
| Complex Problem Solving Skills | Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions. | 10 | -5 |
| Skills—Resource Management Skills | Developed capacities used to allocate resources efficiently | | |
| Management of Financial Resources | Determining how money will be spent to get the work done, and accounting for these expenditures. | 1 | -7 |
| Management of Material Resources | Obtaining and seeing to the appropriate use of equipment, facilities, and materials needed to do certain work. | 2 | -3 |
| Management of Personnel Resources | Motivating, developing, and directing people as they work, identifying the best people for the job. | 0 | -6 |
| Time Management | Managing one's own time and the time of others. | 3 | 0 |
| Skills—Social Skills | Developed capacities used to work with people to achieve goals. Also used for overall coding of sections pertaining to social "embeddedness". | | |
| Coordination | Adjusting actions in relation to others' actions. | 23 | -8 |
| Negotiation | Bringing others together and trying to reconcile differences. | 8 | -4 |
| Persuasion | Persuading others to change their minds or behavior. | 17 | -1 |
| Service Orientation | Actively looking for ways to help people. | 20 | -10 |
| Social Perceptiveness | Being aware of others' reactions and understanding why they react as they do. | 22 | -6 |
| Skills—Systems Skills | Developed capacities used to understand, monitor, and improve socio-technical systems | | |
| Judgment and Decision Making | Considering the relative costs and benefits of potential actions to choose the most appropriate one.<br>We're using this to capture personal courage and initiative. | 24 | -10 |
| Systems Evaluation | Identifying measures or indicators of system performance and the actions needed to improve or correct performance, relative to the goals of the system. | 5 | -2 |
| Systems Analysis | Determining how a system should work and how changes in conditions, operations, and the environment will affect outcomes. | 42 | -19 |

Table 14. Abilities

| Abilities | Enduring attributes of the individual that influence performance. | Instances | |
|---|---|---|---|
| | | Banshik | Thezren |
| Cognitive Abilities | Abilities that influence the acquisition and application of knowledge in problem solving | | |
| Category Flexibility | The ability to generate or use different sets of rules for combining or grouping things in different ways. | 5 | 0 |
| Fluency of Ideas | The ability to come up with a number of ideas about a topic (the number of ideas is important, not their quality, correctness, or creativity). | 4 | -1 |
| Inductive Reasoning | The ability to combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events). | 6 | -1 |
| Originality | The ability to come up with unusual or clever ideas about a given topic or situation, or to develop creative ways to solve a problem. | 2 | -1 |
| Oral Expression | The ability to communicate information and ideas in speaking so others will understand. | 1 | 0 |
| Problem Sensitivity | The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem. | 14 | -9 |
| Selective Attention | The ability to concentrate on a task over a period of time without being distracted. | 2 | 0 |
| Time Sharing | The ability to shift back and forth between two or more activities or sources of information (such as speech, sounds, touch, or other sources). | 0 | -1 |
| Visualization | The ability to imagine how something will look after it is moved around or when its parts are moved or rearranged. | 2 | 0 |

## B. INTERPRETATION OF RESULTS

UNCA Banshik consistently scored higher than UNCA Thezren in terms of observed WA and KSA. Based on Banshik's highest scoring categories, it was viewed as a network focused on achieving mission objectives that invited diverse stakeholders into an adaptive learning and problem-solving process. The high scores in establishing and maintaining interpersonal relationship and communicating with persons outside the organization indicate how Banshik leveraged social relationships to accomplish its goals. Its high score in judging the qualities of things, services, or people reflects Banshik's recognition that every stakeholder could be a contributor to the overall effort. Its high thinking creatively score demonstrates its willingness to find and employ unorthodox solutions. In addition, its high score on systems analysis illustrates Banshik's ability to

scan its complex, interconnected environment, and anticipate problems before they became a crisis.

In contrast, UNCA Thezren stood out in terms of its low scores in the same categories. As a network, it appeared unable to understand its environment (low score on systems analysis), unable to understand the value in building relationships (low score on communicating with persons outside the organization and low score on establishing and maintaining interpersonal relationships), and unable to move beyond an internal administrative focus (low score on service orientation)

## C. CROSS-CASE ANALYSIS OF WORK ACTIVITIES AND KNOWLEDGE, SKILLS, AND ABILITIES

Next, the two cases were compared to identify cross-case differences in terms of WA and KSA. Following procedures summarized in Chapter III, the overall scores was calculated for the coded instances of WA and KSA categories. These scored categories were then ordered to identify those categories that had the most difference down to those that had the least difference between the two cases. The deltas ranged from 61 points in systems analysis to one point in scheduling work and activities (See Figure 19). The delta is derived from the numerical difference of actors' scores in WA and KSA between the two cases. For example, if an actor (whether an individual or an organization) in one case was coded two times with positive service orientation, and five times with negative service orientation, then that actor's total score for service orientation would be a negative three. Contrast this score with an actor in the other case with a total score for service orientation of positive four. The resulting delta between the two cases would be a score of seven points. Conceptually, this delta provides the degree of separation in performance between the two cases. Since UNCA Banshik scored higher than UNCA Thezren in all categories, the delta always represents the degree to which UNCA Banshik scored higher than UNCA Thezren.

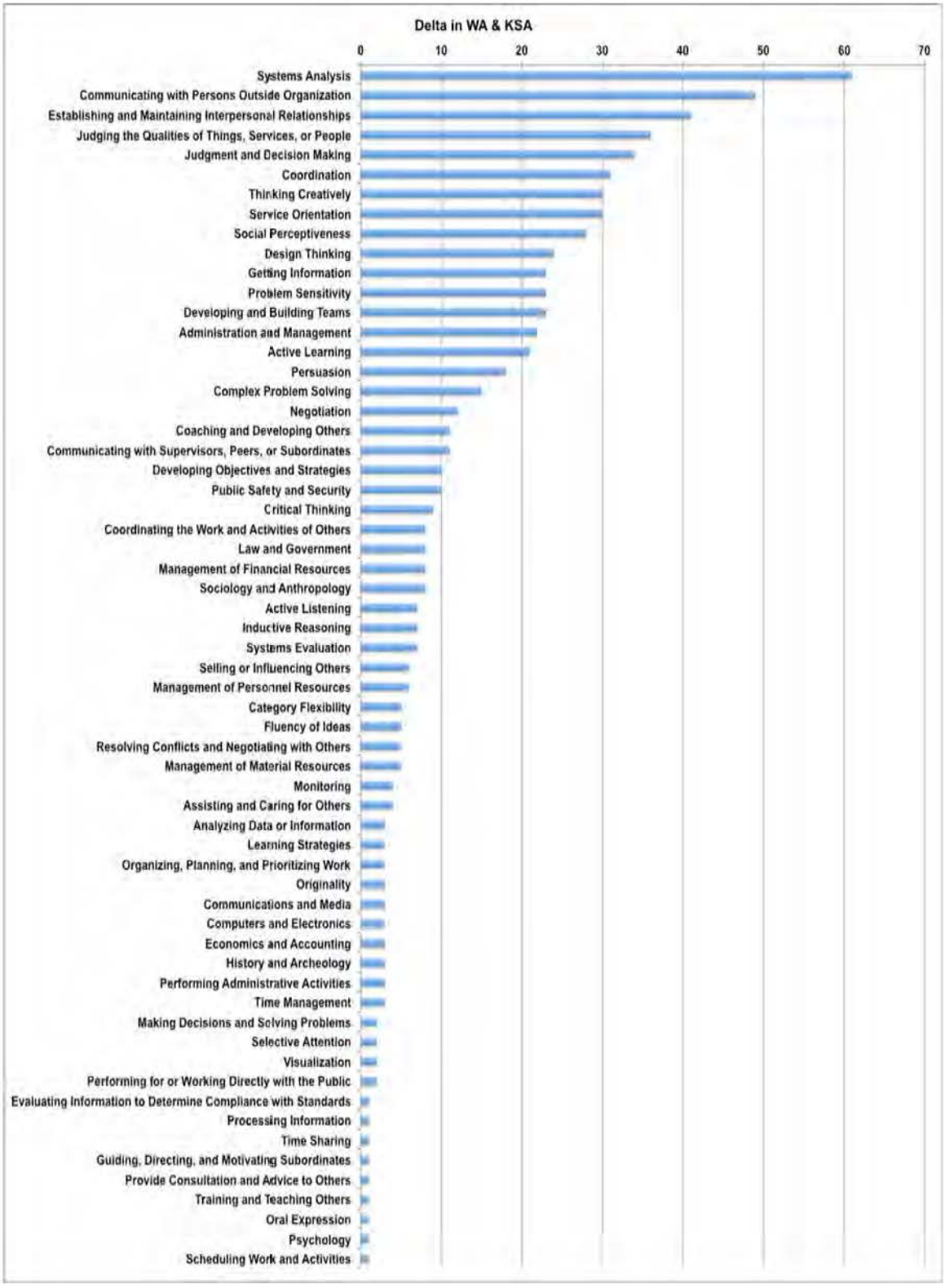


Figure 19. Delta in WA and KSA

Figure 19 shows the delta between the cases in 61 categories in which a delta of one point or more occurred. The categories with a difference of 30 points or more include the following: systems analysis; communicating with persons outside the organization; establishing and maintaining interpersonal relationships; judging the qualities of things, services, or people; judgment and decision making; coordination; thinking creatively; and service orientation. A difference of 28 to 10 points occurred in 14 categories. A difference of nine points to one point occurred in 39 categories. The authors believe that those categories in which the largest difference between cases occurred are the categories that contributed the most to the different outcomes between Banshik and Thezren.

Tables 15 through 24 highlight several examples from the observed differences between the cases in terms of WA and KSA.

Table 15. Contrast in Systems Analysis

| **Contrast in Systems Analysis** |
|---|
| Systems Analysis: Determining how a system should work and how changes in conditions, operations, and the environment will affect outcomes. |
| Banshik Example: "I was driving with Peterson to Pristina when we came upon a traffic accident. Peterson did not have a direct link to the KPS, because they do not have the use of UNCA communications equipment. He called on the radio in the UNCA car to CivPol in Banshik, who then told the KPS, who sent a car to the scene. The road was blocked as a result of the crash, and there were no injuries; however, the delay due to the circuitous route to the police could potentially have serious consequences in a security situation, for instance, in a riot or potentially riot-producing situation, neither of which was uncommon."[228] |
| Interpretation: This passage exemplifies how Terry Peterson appeared to have recognized his environment in systems terms. He seemingly observed more than just an isolated traffic incident, and perhaps saw how the event could produce 2nd and 3rd order effects. This apparent recognition prompted him to take action, to the best of his ability that would mitigate predicted negative consequences. |
| Thezren Example: "All woodcutting in Kosovo required a permit, but illegal woodcutting was rampant. The Serbians in Pluska, one of the enclaves in Thezren, alleged that Albanians were cutting wood illegally in a forest beside the Serb enclave, which they said was Serb property KFOR, contacted Henry Ghosh, the UNCA officer responsible for the enclaves, and asked him to meet with KFOR officers and the village leaders when he was in the enclave for one of his regular visits[Henry] getting the MA or other UNCA officers involved was not mentioned as a possibility in this particular situation. In the meeting, Henry heard that the situation had been a source of tension in the enclave for several weeks. However, no immediate plans to remedy the situation came out of that ad hoc meeting, and there was no discussion of getting other organizations involved to brainstorm a collective solution. Instead, there were plans to make plans... Two days laternews came in of a double homicide in the wood in question beside the Serb enclave. One Albanian |

[228] Holohan, *Networks of Democracy: Lessons from Kosovo for Afghanistan, Iraq, and Beyond*, 102.

| Contrast in Systems Analysis |
| --- |
| woodcutter had been found dead, and another was missingThe UNCA became aware of the incident two days later, and when the topic came up at the staff meeting on the Friday of that week, the MA said that it was a terrible thing to have happened and that he would discuss it at the inter-organizational security meeting. It was spoken about as an incident "out there" and was clearly not perceived as something that the UNCA should have been aware of, had any role in, or could do anything about."[229] |
| Interpretation: This passage exemplifies a general lack of systems analysis in UNCA Thezren. As seen here, Henry Gosh seemingly did not understand the gravity of the situation and the possible negative outcomes that would come from failing to address the illegal woodcutting issue. Additionally, it appears that he didn't recognize that he could do something about the issue, and was seemingly unable to formulate how he might be able to influence the situation. Likewise, the UNCA Thezren Municipal Administrator Khalid Shamon did not seem to recognize that crime prevention in the post-conflict environment was something civil administration should and could do something about. |

Table 16. Contrast in Establishing and Maintaining Interpersonal Relationships

| Contrast in Establishing and Maintaining Interpersonal Relationships |
| --- |
| Establishing and Maintaining Interpersonal Relationships: Developing constructive and cooperative working relationships with others, and maintaining them over time. |
| Banshik Example: "In Banshik, the leadership was more aware of the need for local knowledge, and work habits reflected this. Peterson and Fatoohi's offices were two of six offices opening off a main area. Their doors were open all the time, and they were constantly in and out, interacting with the international and national staff. The local staff had one office exclusively for their use, but apart from Peterson and Fatoohi, each UNCA officer had a local language assistant working at an adjacent desk. Both the MA and the DMA worked each day till 8 or 9 P.M., and they also came into the office on weekends. They were deliberately and consciously accessible all the time. Both lived in the municipality and ate most of their evening meals in one of two restaurants in the town, where they constantly met and interacted with other internationals and local leaders."[230] |
| Interpretation: Peterson and Fatoohi seem to display commitment, even outside of office hours, to building relationships. They both committed time to moving beyond simply building formal connections with environmental actors, and instead became very involved in the local community. |
| Thezren Example: "The MA's forays into the town and surrounding areas were infrequent and only included meetings on the KFOR base or in the OSCE office or the police station. He was also rarely seen inside the municipality building, because he remained inside his own office, receiving only scheduled visitors. There were two large offices each occupied by three UNCA officers and another one used by the language assistants and drivers and one UNCA officer. The DMA, Cole Thedy, had his own office on a different floor. Since Shaman had begun working in Thezren in July 2001, he had been in the offices used primarily by the internationals only once and had never been in the office used by the language assistants. His own office door was kept closed, and no one, including his staff, could enter without making an appointment. Thedy did live in the municipality, but like the MA, he kept to a 9 to 5 schedule, rarely working in the evening or on weekends."[231] |

[229] Holohan, *Networks of Democracy: Lessons from Kosovo for Afghanistan, Iraq, and Beyond*, 62–63.

[230] Ibid., 55.

[231] Ibid.

| Contrast in Establishing and Maintaining Interpersonal Relationships |
|---|
| Interpretation: Shamon appeared satisfied with the few formal relationships with peers necessary to conduct specified tasks within a 9-5 workday. He seemingly had no interest in developing genuine interpersonal relationships with diverse actors and apparently saw little value in such relationships. Even the relationship between Shamon and his Deputy MA Cole Thedy was transactional rather than interpersonal. |

Table 17. Contrast in Communicating with Persons Outside Organization

| Contrast in Communicating with Persons Outside Organization |
|---|
| Communicating with Persons Outside Organization: Communicating with people outside the organization, representing the organization to customers, the public, government, and other external sources. This information can be exchanged in person, in writing, or by telephone or e-mail. |
| Banshik Example: "I accompanied Peterson to the French base one Monday morningWe are allowed in and drive to the officers' mess tent. The French captain and his lieutenant come in wearing their workout gear-they are relaxed and informal. We all drink coffee from bowls and eat croissants. Peterson's military background undoubtedly helps as he is totally comfortable in the military environment and partakes like he had breakfast here every day of the week. Peterson does most of the talking, because the officers are new, having arrived the previous week. The previous Monday's meeting was the handover, where the outgoing captain and the incoming one were both there with Peterson. I ask Peterson after we leave the base, is this meeting his initiative? He says yes, absolutely. If it weren't for him, there would be almost no contact between KFOR and UNMIK. He doesn't think their role is that crucial here, except in the Serb enclaves [in Banshik], but he thinks it is important that he be able to call on them in a crisis and vice versa, or if either needs to know something really crucial."[232] |
| Interpretation: Peterson exercises initiative to communicate with actors who are external to his organization to convey how each might be able to help the other. Through these communications, Peterson is apparently able to open a conduit for information exchange, which helps improve situational awareness for all concerned. . |
| Thezren Example: "The MA's contact with the leadership and directors of the local municipality-also in the same building-was irregular and did not concern day-to-day activities"[233] |
| Interpretation: Shamon seemingly exercised little effort to communicate with people outside of his organization, even with actors located within his building. He did little to facilitate information exchange between and among actors. Consequently, few understood the purpose of his organization. |

Table 18. Contrast in Judging the Qualities of Things, Services, or People

| Contrast in Judging the Qualities of Things, Services, or People |
|---|
| Judging the Qualities of Things, Services, or People: Assessing the value, importance, or quality of things or people. |
| Banshik Example: "In the village of Slavina in the Banshik municipality, when the French military, Peterson and Giampiero from the UNCA, and local Serbian and Albanian villagers were walking around a field where water rights were under dispute (French KFOR had dug a trench for the Serbs against their and the Albanian villagers' wishes, which would have diverted a critical water source for both sides of the village to only the Serb one) for four hours, the solution eventually came from |

[232] Holohan, *Networks of Democracy: Lessons from Kosovo for Afghanistan, Iraq, and Beyond*, 66–67.

[233] Ibid., 55.

| Contrast in Judging the Qualities of Things, Services, or People |
|---|
| Ilir, a young UN Albanian language assistant. He suggested to the two village leaders that they sit down and agree what was to be done and then put it in writing, saying that KFOR would have to abide by that. Furthermore, if the water pipe were damaged again (one of the reasons why KFOR wanted to dig the Serb only trench was because the pipe leading to the Serb village had been vandalized), both villages would share the cost of repairing it. Due to the informal nature of the UNCA office, Ilir did not feel that his job was limited to translation, and when he saw a solution that might work, he felt free to suggest it. KFOR was ignoring his suggestion until Peterson came over and immediately agreed that it was the right thing to do and used his authority to get everyone to agree to a time two days later when they would meet and write the agreement."[234] |
| Interpretation: Peterson appears to have understood the value of Ilir beyond being an interpreter, recognizing his personal value and as a local with useful knowledge and an understanding of the local culture. In this instance Peterson appears to have seen the value of Ilir's recommendation and implemented it. Ilir's willingness to contribute indicates that in UNCA Banshik welcomed input from its personnel no matter their rank or role. |
| Thezren Example: "In Thezren, Shamon's habits were that of the head of a status-conscious hierarchy. He habitually summoned one of the only two female language assistants to make tea (much to their indignation), and his driver carried his bag to his car and opened and closed the car door for him. Shamon admonished Thabo, the only UNCA officer who had his desk in the office that the language assistants used, to 'keep your distance from the local people. We have standards to keep [up]'."[235] |
| Interpretation: Shamon seemingly discounted individuals based on their rank or role rather than evaluating them on their merit. Furthermore, he apparently viewed UNCA internationals as superior to locals. |

Table 19. Contrast in Service Orientation

| Contrast in Service Orientation |
|---|
| Service Orientation: Actively looking for ways to help people and the community. |
| Banshik Example: "In Banshik, MA Terry Peterson and DMA Orash Fatoohi discovered that the tea lady couldn't read or write, so they decided that three hours of her working day each day were to be dedicated to literacy classes, which they paid for."[236] |
| Interpretation: This instance illustrates UNCA Banshik's commitment to improving and serving the municipality at every opportunity. |
| Thezren Example: "In Thezren, the MA's schedule was 9 A.M. to 5 P.M. He was not accessible outside those hours, because he was driven from where he lived in Pristina (although officially the UNCA requires that its staff live in the municipality they work in) each day and left at 5 P.M. or earlier. Adherence to this schedule both led to and was indicative of a general lack of flexibility on the part of the UNCA in Thezren."[237] |
| Interpretation: Shamon seemingly demonstrated a lack of service to the community by not living in the municipality in which he worked. Choosing to live outside the municipality indicates not only a physical distance but also an apparent lack of interest in knowing the municipality, its problems, and how he might assist it. |

[234] Holohan, *Networks of Democracy: Lessons from Kosovo for Afghanistan, Iraq, and Beyond*, 81.

[235] Ibid., 77.

[236] Ibid.

[237] Ibid., 54.

Table 20. Contrast in Judgment and Decision Making

| **Contrast in Judgment and Decision Making** |
|---|
| Judgment and Decision Making: Considering the relative costs and benefits of potential actions to choose the most appropriate one. (Also used to code personal courage and initiative) |
| Banshik Example: "Fatoohi recalled'In Banshik, they wanted the same thing. But I wrote it into the statute that there would be one day, Banshik Day, not a martyr's day or anything identifiably Albanian, and that this would be decided on by consensus, and ... once it is in the statute, it is difficult to change.' Despite opposition from the Albanians, Fatoohi's decision prevailed."[238] |
| Interpretation: Fatoohi made a decision about a Kosovar holiday based on a cost-benefit analysis. Giving a symbolic victory to the Albanians would have been offensive to Serbian Kosovars. Therefore, he implemented a creative solution that was able to preserve UNCA authority and avoid the escalation of sectarian strife. |
| Thezren Example: "The Thezren municipality faced a problematic situation in which land owned by a state-owned enterprise, Produktion, had been illegally invaded by nearby villagersand the director of Produktion appealed to the UNCA for help. The local elected municipal assembly had the authority to tell the villagers, 'If you go on the land, you'll be arrested,' and the UNCA had the authority to compel the assembly to do this. The UNCA could also request that the police arrest the trespassers, but neither the municipal assembly nor the UNCA did anything. DMA Thedy said in a staff meeting prior to the UN-monitored assembly that the municipal CEO had agreed that the issue be taken to courtDMA Thedy did not press the issue, but merely lectured: 'If the international community sees this, they will not invest.' The issue was not solved, and the villagers got away with illegal occupation of the land."[239] |
| Interpretation: UNCA Thezren seemed unable to view the situation as requiring their involvement or to decide on a course of action that would remedy the situation. In this instance, UNCA Thezren abdicated its decision-making authority and refused to take action. It relinquished its authority to the court system and then to an unidentified "international community." |

Table 21. Contrast in Thinking Creatively

| **Contrast in Thinking Creatively** |
|---|
| Thinking Creatively: Developing, designing, or creating new applications, ideas, relationships, systems, or products, including artistic contributions. |
| Banshik Example: "Shortly after the start of the mission, almost every municipality in Kosovo, including Banshik and Thezren, was faced with the desire of the local majority Albanian population and their leadership, which in the initial stages in both municipalities was dominated by self-appointed PDK members, to fly the Albanian flag beside the UN flag over the municipal building. UN regulations expressly forbade the flying of any flags except the UN flag or an authorized municipal flag over public buildings. In both Banshik and Thezren, not only was there a strong push for the Albanian flag to fly along with the UN flag but there was also overwhelming opposition to putting up the Serbian flag as a balancing measure. The UNCA in Banshik devised an alternative strategy, getting schoolchildren to participate in a competition to design a flag for Banshik municipality that did not refer to any ethnicity. The result was a flag depicting the old Turkish bridge in Banshik town with a sheaf of golden wheat indicating the dominant industry in the municipality, agriculture. In fall 2001, it flew beside the UN flag over the municipality's front entrance. The Albanian flag was flown on a small flagpole at the side of the building."[240] |

[238] Holohan, *Networks of Democracy: Lessons from Kosovo for Afghanistan, Iraq, and Beyond*, 66.

[239] Ibid., 61.

[240] Ibid., 15–16.

| Contrast in Thinking Creatively |
|---|
| Interpretation: In a seemingly unwinnable situation, UNCA Banshik was able to develop a creative solution to the flag issue. UNCA Banshik's alternative solution not only satisfied diverse stakeholders, but it also began the slow process of eroding sectarian identities. |
| Thezren Example: "In Thezren, when Thabo proposed an innovative and well-thought-out plan for developing local tourism at a staff meeting, the MA's response lacked any emotional component (even though Thabo was visibly excited); he did not ask any questions about it and merely said, 'Write it up in detail in a report.' Thabo looked disappointed and raised an eyebrow at me. The MA had responded in a conventional bureaucratic way to a subordinate's innovative idea-put it in writing and we'll process it."[241] |
| Interpretation: Rather than supporting and encouraging creative thinking, Shamon appeared to have little enthusiasm for innovation. His actions stifled his subordinate's motivation. |

Table 22. Contrast in Social Perceptiveness

| Contrast in Social Perceptiveness |
|---|
| Social Perceptiveness: Being aware of others' reactions & understanding why they react as they do. |
| Banshik Example: "in the case of the former members of the KLA, many of whom joined the PDK, the frustration this caused yielded more problems than inclusion would have brought, because their struggle to be recognized as having played an important role grew into a determination to get the recognition and rewards they felt they deserved. Peterson and Fatoohi recognized that disgruntled and excluded armed factions are a lot less trouble inside the camp than outside it, and they took care to give them a real role, while making sure that they did not overreach themselves."[242] |
| Interpretation: It appears that Peterson and Fatoohi understood PDK members' need to be wholly included in the political process, despite their previous history, in order to provide a positive outlet for their grievances. They anticipated negative consequences if PDK members perceived that they were being excluded. |
| Thezren Example: At the weekly Interagency meeting in Thezren, "If someone tried to interject to make a point, Daniel would admonish the person with a wave of his hand and a finger to his lips. When a group of Spanish soldiers came in fifteen minutes late, he stopped the meeting, pointed to the clock, and told them that if they wanted to attend, they must be on time, an exercise in humiliation and also, inasmuch as they were irregular attendees at the meeting, not behavior likely to induce attendance."[243] |
| Interpretation: UNCA Thezren was seemingly unable to recognize the human element involved in processes and procedures. Meetings were rigid and appear to have been conducted for procedure's sake rather than for encouraging social interaction that could lead to collaboration on issues. |

Table 23. Contrast in Getting Information

| Contrast in Getting Information |
|---|
| Getting Information: Observing, receiving, and otherwise obtaining information from all relevant sources. |
| Banshik Example: As stated by DMA Fatoohi: "I didn't talk with the police, as the police are very much infiltrated by unsound people. They are not qualified or they are from the UCK. There is a |

[241] Holohan, *Networks of Democracy: Lessons from Kosovo for Afghanistan, Iraq, and Beyond*, 77.

[242] Ibid., 46.

[243] Ibid., 80.

| Contrast in Getting Information |
| --- |
| screening in the hiring process, but I don't think it's perfect. The interpreters especially serving the international police force [are unsound]. Through contacts, I know this. The police are a peculiar structure that [consists of] many people from different cultures and different styles, and it is not an army and it is not efficient. I shared my information with some of the intelligence officers in the French Army when I needed assistance to protect the people before the election. They did the job themselves."[244] |
| Interpretation: Fatoohi was seemingly able to get relevant information from actors in the environment and then use it to his advantage. Additionally, Fatoohi appears to have been able to use these same channels to disseminate information in support of the UNCA's objectives. |
| Thezren Example: "Two days laternews came in of a double homicide in the wood in question beside the Serb enclave. One Albanian woodcutter had been found dead, and another was missing. The policedid not contact any of the other organizations apart from KFORThe UNCA became aware of the incident two days later, and when the topic came up at the staff meeting on the Friday of that week, the MA said that it was a terrible thing to have happened and that he would discuss it at the inter-organizational security meeting. It was spoken about as an incident 'out there' and was clearly not perceived as something that the UNCA should have been aware of, had any role in, or could do anything about."[245] |
| Interpretation: UNCA Thezren seemingly was unable to remain current because they relied on rigid meeting cycles for obtaining information rather than utilizing real-time information channels gained through interpersonal relationships. |

Table 24. Contrast in Design Thinking

| Contrast in Design Thinking |
| --- |
| Design Thinking: The ability to follow an "inherently optimistic, constructive, and experiential" approach that "addresses the needs of the people who will consume a product or service and the infrastructure that enables it."[246] |
| Banshik Example: "'At the beginning Terry and I [DMA Fatoohi] did things and we weren't sure how they were going to turn out. Then the other municipalities, if it worked, did what we did ... but all of us have to confront this situation, which is not a rational situation. Mostly we are inventing the solutions, improvising the solutions.' Sometimes the center did not respond well to ideas coming from lower down in the hierarchy. Part of the civil administration's job was to issue travel documents to Kosovars, but Peterson and Fatoohi did not want to use 'Kosovo' as state of origin, because technically it was still a part of Former Republic of Yugoslavia, but for political reasons, they could not use FRY either. Instead, Fatoohi wrote on the travel documents that the carrier was a 'Citizen of Territory Currently Under UN Control.' Pristina criticized them heavily for taking such initiative, then three months later issued a memo designating the formulation suggested by Fatoohi instead of Kosovo as the official formulation."[247] |
| Interpretation: Peterson and Fatoohi seemingly identified problems faced by citizens of their municipality due to their experiential involvement with the public. They then assumed risk in prototyping solutions that they would adjust according to the results of their experiments. |
| Thezren Example: "Maurice England, an OSCE officer, said that the UN administration suffered from not living in Thezren itself. 'OSCE, we live where we work, and most of the UNMIK staff |

[244] Holohan, *Networks of Democracy: Lessons from Kosovo for Afghanistan, Iraq, and Beyond*, 57.

[245] Ibid., 65–66.

[246] Brown and Wyatt, "Design Thinking for Social Innovation," 32.

[247] Holohan, *Networks of Democracy: Lessons from Kosovo for Afghanistan, Iraq, and Beyond*, 69.

| Contrast in Design Thinking |
| --- |
| doesn't do that. That creates a difference between the local community and the civil administration in this case. OSCE lives here with the people and the same problems-you got the same issues, no water and no electricity. We're all affected. I think maybe if they lived here in the community and notice [d] those problems as part of their everyday life, which they do in Pristina or Previca as well, they [would] also miss water and electricity, but they have other things that they can look forward to, maybe certain things would be able to be helped a little faster, if they faced the same problems. Besides that, it's very good for the local community to see the international presence; that really has an effect, I think. We have very good communication with the local community, at least I do. I'm not sure if that's true on the part of the administration, because they're not here'."[248] |
| Interpretation: UNCA Thezren was unable to develop experiential knowledge of the issues facing citizens in their municipality because they kept themselves isolated from the community. It most likely led to its inability to understand problems and experiment with alternative solutions. |

In the successful case of UNCA Banshik, municipal administrator Terry Peterson recognized his environment as a system in which people (of all types) were an important component. He structured and conducted his civil administration accordingly. In the unsuccessful case of UNCA Thezren, municipal administrator Khalid Shamon did not conceptualize his environment as a system and did not see the value of individuals within his environment. Consequently, Shamon set up his civil administration as a bureaucracy and defined his responsibilities as the straightforward execution of administrative procedures. In general, he did not see the need to understand his operational environment or for building relationships with diverse actors in the community.

## D. COMPARISON BETWEEN THE TWO CASES

Clear trends were observed based on 61 categories of WA and KSA between the two cases as they executed the UN Mandate. The delta in the systems analysis category suggests that UNCA Banshik identified its inter-organizational network as part of a larger system within a very complex environment while Thezren seemingly saw its organization as a stand-alone bureaucratic entity with little interest in its external environment. UNCA Banshik appeared to focus more on developing interpersonal relationships compared to UNCA Thezren as measured by the delta in the developing and maintaining interpersonal relationships category. UNCA Banshik also displayed a higher commitment to the people of the municipality by outscoring UNCA Thezren in the category of service orientation. Contrasting scores in communicating with persons outside the organization indicated that

[248] Holohan, *Networks of Democracy: Lessons from Kosovo for Afghanistan, Iraq, and Beyond*, 85.

UNCA Banshik communicated more with actors in their environment than UNCA Thezren. UNCA Banshik also demonstrated more open-mindedness in the consideration of people's potential contributions than UNCA Thezren as seen in the contrasting scores in the judging the quality of things, services or people category,. As evidenced by the contrasting scores in judgment and decision making, UNCA Banshik seized more opportunities to exercise judgment and action than Thezren. Banshik seemingly explored alternative solutions while Thezren remained committed to ineffective standard operating procedures as captured by the delta in the creative thinking category. The contrast in the social perceptiveness category suggests that UNCA Banshik considered the human dimension in all situations, whereas Thezren seemingly treated it as a hindrance to operations. As indicated by the delta in the getting information category, UNCA Banshik appeared able to remain up-to-date about its environment, while Thezren appeared to lag behind in its knowledge of current events. Contrasting scores in the design thinking category demonstrated that UNCA Banshik had a better understanding of problems and was willing to engage in trial and error learning to improve the situation for local actors, while UNCA Thezren seemed detached from citizens' problems and helping them find solutions. Overall, the contrasts in categories indicate very different approaches between UNCA Banshik and UNCA Thezren, which very likely produced variations in their network designs.

This chapter analyzed the activities and attributes of actors in each case study in terms of WA and KSA. In comparing the two cases, it was concluded that Banshik and Thezren varied significantly in their execution of the UN Mandate. The next chapter, informed by the authors' systems framework analysis, social network analysis, and their activity analysis, builds a process theory of social network design that they believe is applicable to the GSN and its development.

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# VI. BUILDING A PROCESS THEORY

Chapter V employed activity analysis to explore how people in UNCA Banshik and UNCA Thezren developed their social networks. Informed by the authors' systems framework analysis, social network analysis, and activity analysis, this chapter creates composite factors from the A and KSA. These composite factors are used to construct a process model of network design that they believe is applicable to the GSN.

## A. COMPOSITE FACTORS EMERGE

The first step in model building is to group WA and KSA into more general concepts or composite factors that can provide "a basis for discourse and arriving at shared understandings."[249] The clustering of WA and KSA into concepts reduces the complexity of the data and is an important stage of the grounded theory process in which "data must be conceptualized and the concepts related to form a theoretical rendition of reality."[250]

WA and KSA were clustered together according to general themes with which they seemed to be associated. Eventually four composite factors emerged: expertise, sensemaking, connection, and action. A fifth composite factor was also developed based on Holohan's narrative concept, which refers to "the story that individuals told each other"[251] that "communicate[d] a sense of cause, purpose and mission."[252] This fifth factor was derived from the comments and actions of actors in the story.[253]

Expertise is competence in a career field that serves as the entry-level requirement to function in a designated role within a network, i.e., being a trained Special Forces

[249] Corbin et al., *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*, 12.

[250] Strauss and Corbin, *Basics of Qualitative Research: Grounded Theory Procedures and Techniques*.

[251] Arquilla et al., *Networks and Netwars the Future of Terror, Crime, and Militancy*, 324.

[252] Ibid., 328.

[253] The derivation of narrative involved the reorganization of coded data, and associated memos, into separate groups within the two cases as it pertained to the narrative.

soldier to serve as a trainer and advisor of foreign military personnel. In the Banshik and Thezren cases, the entry-level expertise derived from the UN Mandate and the requirements for UN civil administration in a post-conflict environment. Table 25 displays the WA and KSA combined to create the expertise composite. Central to the composite is civil administration, the requirement for entry into and further participation in the network.

Table 25. Expertise

| **Expertise** | |
|---|---|
| Work Activities | General types of job behaviors occurring on multiple jobs. |
| Performing Administrative Activities | Performing day-to-day administrative tasks such as maintaining information files and processing paperwork. |
| Scheduling Work and Activities | Scheduling events, programs, and activities, as well as the work of others. |
| Knowledge | Organized sets of principles and facts applying in general domains. |
| Administration and Management | Knowledge of business and management principles involved in strategic planning, resource allocation, human resources modeling, leadership technique, production methods, and coordination of people and resources. |
| Public Safety and Security | Knowledge of relevant equipment, policies, procedures, and strategies to promote effective local, state, or national security operations for the protection of people, data, property, and institutions. |
| Sociology and Anthropology | Knowledge of group behavior and dynamics, societal trends and influences, human migrations, ethnicity, cultures and their history and origins. |
| Law and Government | Knowledge of laws, legal codes, court procedures, precedents, government regulations, executive orders, agency rules, and the democratic political process. |
| Communications and Media | Knowledge of media production, communication, and dissemination techniques and methods. This includes alternative ways to inform and entertain via written, oral, and visual media. |
| Computers and Electronics | Knowledge of circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming. |
| Economics and Accounting | Knowledge of economic and accounting principles and practices, the financial markets, banking and the analysis and reporting of financial data. |
| History and Archeology | Knowledge of historical events and their causes, indicators, and effects on civilizations and cultures. |
| Psychology | Knowledge of human behavior and performance; individual differences in ability, personality, and interests; learning and motivation; psychological research methods; and the assessment and treatment of behavioral and affective disorders. |
| Skills | Developed capacities that facilitate learning or the more rapid acquisition of knowledge |
| Time Management | Managing one's own time and the time of others. |
| Management of Material Resources | Obtaining and seeing to the appropriate use of equipment, facilities, and materials needed to do certain work. |
| Abilities | Enduring attributes of the individual that influence performance. |
| Selective Attention | The ability to concentrate on a task over a period of time without being distracted. |

Sensemaking is defined as an ongoing, conscious effort to understand and anticipate the requirements in someone's environment through the constant collection and interpretation of information.[254] Sensemaking challenges network members to sort through contradictory information and take action despite the uncertainty and ambiguity that surrounds decision making and problem solving. Central to sensemaking is the understanding of oneself, and of others, especially their motivations and goals. Table 26 identifies the WA and KSA that were clustered into the sensemaking composite. Examples of elements are monitoring and evaluating the environment to update constantly an individual's understanding of events, refining situational awareness to make more informed judgments and decisions in pursuing that individual's purpose. These WA and KSA contribute to an actor's "ability to perceive the nature of the game and the rules by which it is played, as they are playing it."[255]

Table 26. Sensemaking

| **Sensemaking** | |
|---|---|
| Work Activities | General types of job behaviors occurring on multiple jobs. |
| Judging the Qualities of Things, Services, or People | Assessing the value, importance, or quality of things or people. |
| Thinking Creatively | Developing, designing, or creating new applications, ideas, relationships, systems, or products, including artistic contributions. |
| Developing Objectives and Strategies | Establishing long-range objectives and specifying the strategies and actions to achieve them. |
| Organizing, Planning, and Prioritizing Work | Developing specific goals and plans to prioritize, organize, and accomplish your work. |
| Making Decisions and Solving Problems | Analyzing information and evaluating results to choose the best solution and solve problems. |
| Analyzing Data or Information | Identifying the underlying principles, reasons, or facts of information by breaking down information or data into separate parts. |
| Processing Information | Compiling, coding, categorizing, calculating, tabulating, auditing, or verifying information or data. |

[254] Deborah Ancona, "Sensemaking: Framing and Acting in the Unknown," in *The Handbook for Teaching Leadership: Knowing, Doing, and Being*, ed. Scott Snook, Nitin Nohria, and Rakesh Khurana (Newbury Park, CA: Sage Publications, 2011), 4.

[255] Ibid., 5.

| Sensemaking | |
|---|---|
| Evaluating Information to Determine Compliance with Standards | Using relevant information and individual judgment to determine whether events or processes comply with laws, regulations, or standards. |
| Monitor Processes, Materials, or Surroundings | Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems. |
| Knowledge | Organized sets of principles and facts applying in general domains. |
| Design | Knowledge of design techniques, tools, and principles involved in production of precision technical plans, blueprints, drawings, and models. |
| Skills | Developed capacities that facilitate learning or the more rapid acquisition of knowledge |
| Systems Analysis | Determining how a system should work and how changes in conditions, operations, and the environment will affect outcomes. |
| Judgment and Decision Making | Considering the relative costs and benefits of potential actions to choose the most appropriate one.<br>It also denotes personal courage and initiative. |
| Social Perceptiveness | Being aware of others' reactions and understanding why they react as they do. |
| Active Learning | Understanding the implications of new information for both current and future problem solving and decision making. |
| Complex Problem Solving | Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions. |
| Critical Thinking | Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems. |
| Systems Evaluation | Identifying measures or indicators of system performance and the actions needed to improve or correct performance, relative to the goals of the system. |
| Active Listening | Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times. |
| Learning Strategies | Selecting and using training/instructional methods and procedures appropriate for the situation when learning or teaching new things. |
| Monitoring | Monitoring/Assessing performance of yourself, other individuals, or organizations to make improvements or take corrective action. |
| Abilities | Enduring attributes of the individual that influence performance. |
| Problem Sensitivity | The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem. |
| Inductive Reasoning | The ability to combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events). |
| Category Flexibility | The ability to generate or use different sets of rules for combining or grouping things in different ways. |
| Fluency of Ideas | The ability to come up with a number of ideas about a topic (the number of ideas is important, not their quality, correctness, or creativity). |
| Originality | The ability to come up with unusual or clever ideas about a given topic or situation, or to develop creative ways to solve a problem. |
| Visualization | The ability to imagine how something will look after it is moved around or when its parts are moved or rearranged. |

Connection is defined as the interactions between an actor and the individuals and organizations in their environment. Connection builds enduring ties or social capital,

defined as “the sum of the bonds among people in a network and the behaviors that are expected, allowed, and enabled by how people meet, greet, interact with, and otherwise express their shared identity with others.” Table 27 displays the WA and KSA that were clustered together to capture the complexity and nuances of social interaction that are both tangible (i.e., resource and information exchanges) and intangible (i.e., social capital).

Table 27. Connection

| **Connection** | |
|---|---|
| Work Activities | General types of job behaviors occurring on multiple jobs. |
| Establishing and Maintaining Interpersonal Relationships | Developing constructive and cooperative working relationships with others, and maintaining them over time. |
| Communicating with Persons Outside Organization | Communicating with people outside the organization, representing the organization to customers, the public, government, and other external sources. This information can be exchanged in person, in writing, or by telephone or e-mail. |
| Developing and Building Teams | Encouraging and building mutual trust, respect, and cooperation among team members. |
| Coaching and Developing Others | Identifying the developmental needs of others and coaching, mentoring, or otherwise helping others to improve their knowledge or skills. |
| Communicating with Supervisors, Peers, or Subordinates | Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person. |
| Assisting and Caring for Others | Providing personal assistance, medical attention, emotional support, or other personal care to others such as coworkers, customers, or patients. |
| Guiding, Directing, and Motivating Subordinates | Providing guidance and direction to subordinates, including setting performance standards and monitoring performance. |
| Training and Teaching Others | Identifying the educational needs of others, developing formal educational or training programs or classes, and teaching or instructing others. |
| Provide Consultation and Advice to Others | Providing guidance and expert advice to management or other groups on technical, systems-, or process-related topics. |
| Skills | Developed capacities that facilitate learning or the more rapid acquisition of knowledge |
| Service Orientation | Actively looking for ways to help people. |

Action is defined as a set of activities and skills that influence others to achieve specific results. Table 28 displays the WA and KSA that were clustered together, such as influencing, negotiating, managing conflict, and coordinating others to get things done.

Table 28. Action

| Action | |
|---|---|
| Work Activities | General types of job behaviors occurring on multiple jobs. |
| Selling or Influencing Others | Convincing others to buy merchandise/goods or to otherwise change their minds or actions. |
| Resolving Conflicts and Negotiating with Others | Handling complaints, settling disputes, and resolving grievances and conflicts, or otherwise negotiating with others. |
| Skills | Developed capacities that facilitate learning or the more rapid acquisition of knowledge |
| Coordination | Adjusting actions in relation to others' actions. |
| Negotiation | Bringing others together and trying to reconcile differences. |
| Persuasion | Persuading others to change their minds or behavior. |

### 1. Case Comparison of Composite Factors

The differences between UNCA Banshik and UNCA Thezren in terms of the composite factors can be seen in Figure 20. When clustering WA and KSA into composite factors, their delta scores were retained to compare the distribution of composite factors. As seen in Figure 20, the sensemaking category comprised just over half of the instances of the WA and KSA that distinguished UNCA Banshik from UNCA Thezren. The connection concept accounted for just over a quarter of what was different between the two UNCA organizations. The remaining difference was almost equally split between expertise and action, with action being the least observed difference between the two cases.

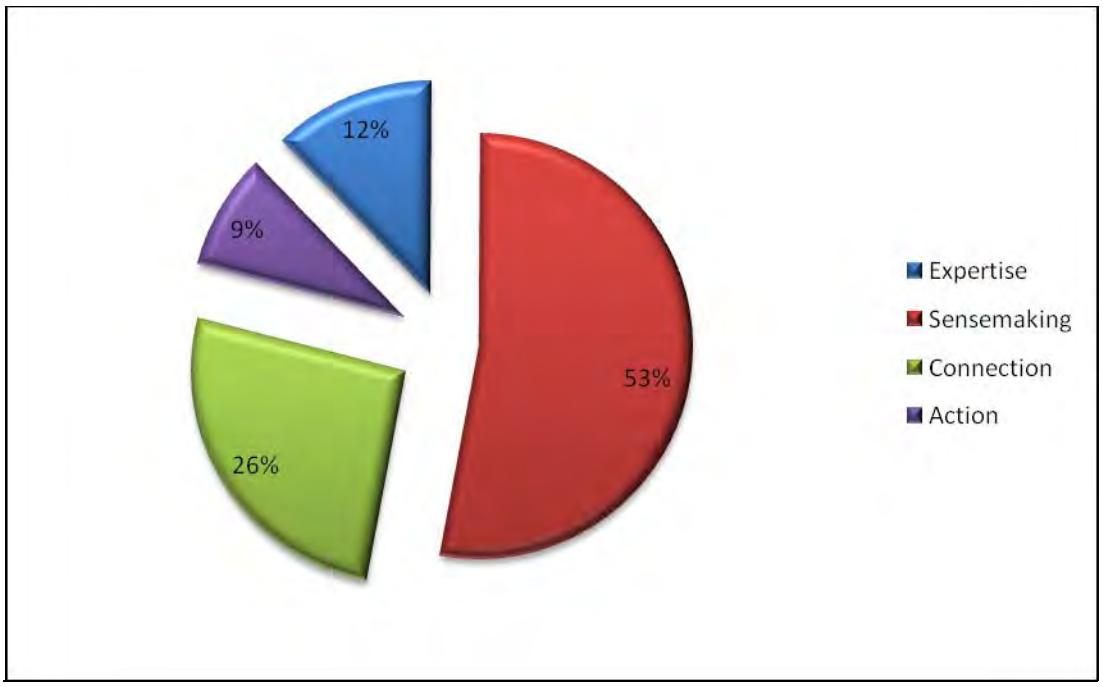


Figure 20. Delta in Composite Factors

Upon further analysis, another composite factor was identified called narrative. This composite factor emerged from the authors' analysis of Holohan's text in *Networks of Democracy*, as she described the distinct communities that evolved in Banskik and Threzen.[256] Holohan described these communities as telling different stories, and referenced Arquilla and Ronfeldt's description of narrative and its importance.[257]

For example, in Banshik, the story being told was about a collection of people from different backgrounds and experiences trying to figure out how to make the municipality a better place. This broad story was very inclusive of diverse partners, especially local actors, who worked in ad-hoc teams in which every member played a vital part. As municipal administrator Peterson pointed out, local actors had far greater experience than those who came from the outside. "They'd all been working here before 1989, when the Serbs fired them all. They'd done this before. Nobody on my team [the UNCA team] has done this before." Central to the story is how team members positioned

[256] Holohan, *Networks of Democracy: Lessons from Kosovo for Afghanistan, Iraq, and Beyond.*

[257] Arquilla et al., *Networks and Netwars the Future of Terror, Crime, and Militancy*, 324.

themselves to learn the rules of a game and how to win as they played it. Peterson, as described by Holohan, personified the UNCA Banshik narrative when he stated, "There are no guidelines for municipal administrators. You make it up as you go along, which is what I like."[258]

In Thezren, the story being told was about career diplomats and UN international officials conducting basic administration and management of UNMIK operations within the municipality. In this story, UN officials were present to provide general guidance to local officials while maintaining their distance to avoid personal involvement. The Thezren story was one of executing formal roles, following established procedures, and abiding by regulations in a straightforward, some would say, inflexible manner. The UNCA Thezren narrative was exemplified by municipal administrator Khalid Shamon's interactions with local municipal leaders. As Holohan described it, "he got together with the local municipal leaders once every week or two weeks for a formal sit-down meeting, but when I questioned him, he had little knowledge of concrete issues they were working on—he said that the discussions he had had with the CEO and municipal president were of an abstract nature, about moral courage and political principles, which he felt it was the task of the UN to impart."[259] The UNCA Thezren narrative was very apparent when Shamon mentored his subordinates and instructed them to "keep your distance from the local people. We have standards to keep [up]."[260]

Stories, or narratives, "provide a grounded expression of people's experiences, interests, and values."[261] The authors' agree that they are important because they provide people with "a sense of identity and belonging" within networks and "communicate a sense of cause, purpose and mission."[262] Furthermore, narratives explain how networks

[258] Holohan, *Networks of Democracy: Lessons from Kosovo for Afghanistan, Iraq, and Beyond*, 67.

[259] Ibid., 60.

[260] Ibid., 77.

[261] Arquilla et al., *Networks and Netwars the Future of Terror, Crime, and Militancy*, 328.

[262] Ibid.

intend to accomplish their mission.[263] Thus, narrative became the fifth composite factor in the data reduction efforts.

## B. MODEL DEVELOPMENT

As stated in Strauss and Corbin, "building theory by its very nature implies interpreting data, for the data must be conceptualized and the concepts related to form a theoretical rendition of reality."[264] In constructing the composite factors, the authors began to identify relationships between and among them. As noted already, narrative guides each of the other composite factors. As the cases were reexamined and reinterpreted with these factors in mind, deeper insights emerged that suggested an underlying process by which UNCA Banshik developed its social network.

### 1. Relationship Among the Composite Factors

The following vignette from UNCA Banshik demonstrates the interaction of the expertise and sensemaking composite factors:

> At the beginning Terry and I did things and we weren't sure how they were going to turn out. Then the other municipalities, if it worked, did what we did ... but all of us have to confront this situation, which is not a rational situation. Mostly we are inventing the solutions, improvising the solutions." Sometimes the center did not respond well to ideas coming from lower down in the hierarchy. Part of the civil administration's job was to issue travel documents to Kosovars, but Peterson and Fatoohi did not want to use "Kosovo" as state of origin, because technically it was still a part of Former Republic of Yugoslavia, but for political reasons, they could not use FRY either. Instead, Fatoohi wrote on the travel documents that the carrier was a "Citizen of Territory Currently Under UN Control." Pristina criticized them heavily for taking such initiative, then three months later issued a memo designating the formulation suggested by Fatoohi instead of Kosovo as the official formulation.[265]

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[263] Arquilla et al., *Networks and Netwars the Future of Terror, Crime, and Militancy*, 328.

[264] Strauss and Corbin, *Basics of Qualitative Research: Grounded Theory Procedures and Techniques*.

[265] Holohan, *Networks of Democracy: Lessons from Kosovo for Afghanistan, Iraq, and Beyond*, 69.

This vignette exemplifies how Peterson and Fatoohi employed and refined their expertise in civil administration. Peterson and Fatoohi possessed a background in civil administration that enabled them to process passports for the Kosovar citizens of their municipality; however, they realized that they could not conduct this administrative duty through standard procedures because of the special political status of Kosovo at the time. They expanded on their expertise in civil administration by adjusting for a post-conflict environment and were able to develop a new solution. Their recognition of the need to alter their civil administration procedures in accordance with their environment is a demonstration of sensemaking. Essentially, Peterson and Fatoohi were figuring out "the game" while they were playing it.

The following vignette from UNCA Banshik demonstrates the interaction of the connection action and narrative composite factors:

> After a Serbian farmer was attacked and his tractor stolen from the Serbian enclave of Palaj in Banshik, there was a mini-riot when the Serb villagers protested against the ineffectualness of the police. The police, as indicated by Fatoohi, were universally regarded as "the weakest link" (as UN Deputy Regional Administrator Marlene Royce put it). Peterson, who was summoned on the radio by the police and went down to the Serbian enclave at 8 P.M., as the riot was subsiding, protested that it had taken the police six hours to let him know what was happening. As MA, he felt it was absolutely a matter that concerned him. The military had things under control, but Peterson went into the crowd, met with the village leaders, and set up a meeting for the villagers with the UNCA, OSCE, police, and KFOR the following afternoon. His personal acquaintance not only with the key personnel from each of the organizations but also with the local villagers enabled him to do this. He also persuaded the police and KFOR to invite their regional commanders to the meeting, which took place as scheduled the next day. It lasted four hours, with complaints presented by all sides – the police objected that the local population would not cooperate with them – and eventually it was agreed that a working group made up of all the organizations represented and village leadership would meet weekly. The purpose was to improve communications and to be aware of and try to resolve security issues. The main complaint of the Serbs was that they were being ignored and their complaints were not being taken seriously, but crucially they trusted Peterson and knew that he had the contacts to at least bring people together, however pessimistic they were about what such meetings could achieve. One tangible achievement was that the villagers agreed that there would be no more violent protests

> —they now had a forum in which they could air their grievances with all the key parties and know that they would be heard.[266]

This vignette exemplifies Peterson's connection with diverse stakeholders within the environment including villagers, police, KFOR soldiers, and OSCE officials. Peterson actively developed connections with diverse stakeholders through regular meetings, breakfasts, and unscheduled visits. Most pertinent to this example, Peterson had regularly visited the Serbian and Albanian enclaves.[267] Peterson revealed that he was deliberately developing social capital that might be leveraged into action when he stated, "It's all goodwill in the bank; you never know when I might have to call on it."[268]

The action composite also surfaces in the preceding vignette when Peterson was able to persuade all sides to agree to a meeting by leveraging his social capital with each of them. Peterson's persuasive powers convinced the stakeholders to meet and eventually come to an agreement. Additionally, in this same vignette, Peterson demonstrated the power of narrative when he honored the potential contributions of diverse stakeholders by bringing them together to encourage their collaboration. Peterson's actions demonstrated how he "operationalized" his narrative and led by example.

As the text was examined and the composite factors reviewed, a process model began to be formed that describes how the factors relate to one another.[269] Expertise, sensemaking and narrative were viewed as the essential elements in developing a social network. Expertise is important because it is the entry-level requirement for representing an organization in an inter-organizational network. In addition, expertise is the basis for an actor's initial value to an inter-organizational network. Sensemaking enables the

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[266] Holohan, *Networks of Democracy: Lessons from Kosovo for Afghanistan, Iraq, and Beyond*, 57–58.

[267] It is worth mentioning that the connections discussed in this vignette are difficult to achieve in an environment in which ethnic violence had fractured society and when the police and KFOR were not integrated in their efforts. The development of such connections requires constant effort.

[268] Holohan, *Networks of Democracy: Lessons from Kosovo for Afghanistan, Iraq, and Beyond*, 57.

[269] Andrew H. Van de Ven, *Engaged Scholarship: A Guide for Organizational and Social Research* (Cary, NC: Oxford University Press, Incorporated, 2007), 148, http://site.ebrary.com/lib/nps/docDetail.action?docID=10194261. Van de Ven states the following: "In general terms, a variance model explains change in terms of relationships among independent variables and dependent variables, while a process model explains how a sequence of events leads to some outcome."

interpretation of a complex world into understandable terms, which help determine suitable actions.[270] Narrative "express[es] a sense of identity and belonging, communicate[s] a sense of cause, purpose and mission" and explains how networks intend to accomplish their mission.[271] Together, they create the foundation on which the network can build. Over time, connection with other actors expands the network, which further reinforces and informs expertise, sensemaking, and the narrative. As expertise, sensemaking, connection, and narrative evolve, other actors are attracted to the network, which enhances the network's action and the ability to get things done. Meanwhile, the use and refinement of narrative reinforces and supports the other composite factors throughout the design process. Figure 21 illustrates what is termed the E-SCAN (expertise, sensemaking, connection, action, and narrative) process model of social network development.

[270] Ancona, "Sensemaking: Framing and Acting in the Unknown," 4.

[271] Arquilla et al., *Networks and Netwars the Future of Terror, Crime, and Militancy*, 328.

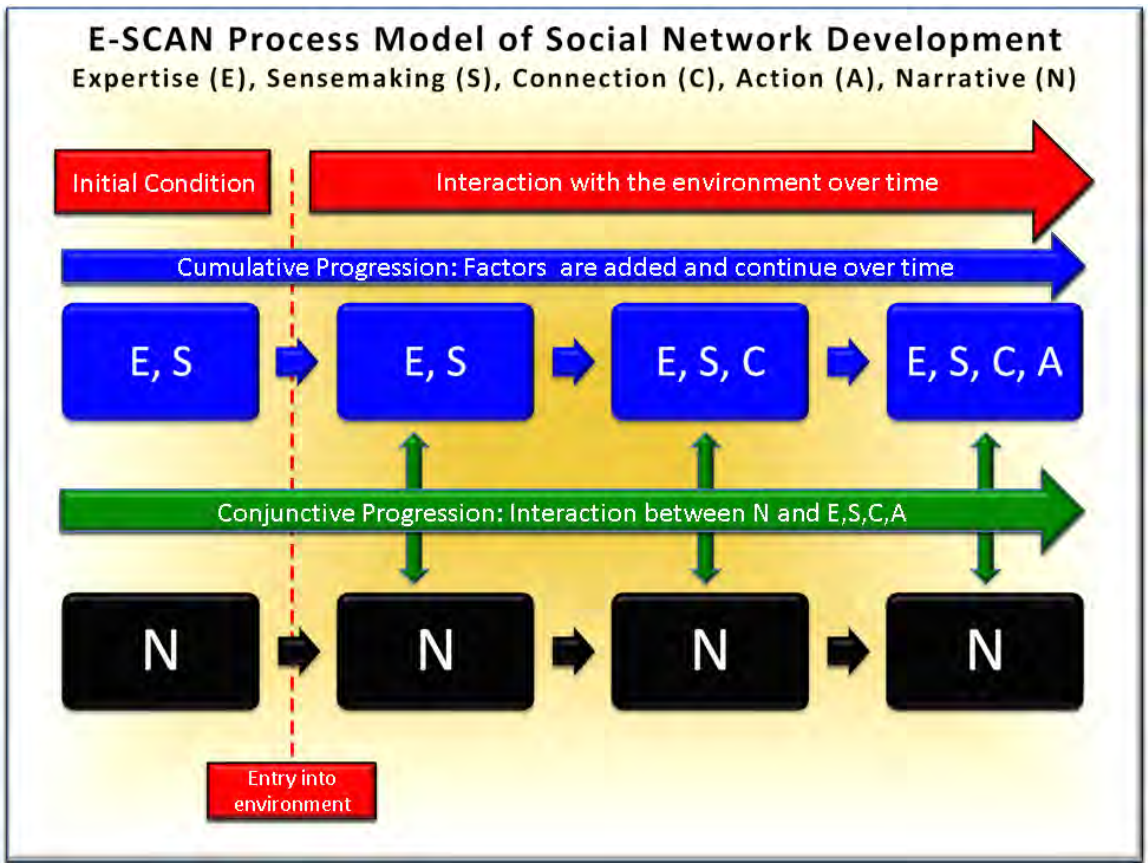


Figure 21. E-SCAN Process Model of Social Network Development[272]

The E-SCAN process model contains multiple parallel progressions,[273] which occur in the refinement of expertise, sensemaking, connection and action simultaneously and parallel to the refinement of narrative over time (see Figure 21). The process model is characterized by cumulative progression,[274] because as composite factors occur, they remain in the process throughout and continue refinement and interaction with each

[272] Van de Ven, *Engaged Scholarship: A Guide for Organizational and Social Research*, 199. The process model contains multiple parallel progressions in that the refinement of expertise, sensemaking, connection, and action occur simultaneously and parallel to the refinement of narrative over time. The process model is characterized by cumulative progression because as composite factors occur, they remain in the process throughout and continue refinement and interaction with each other. The process model is also characterized by conjunctive progression because interaction occurs between narrative and the other composite factors over the course of the process.

[273] Ibid.

[274] Ibid.

other. The process model is also characterized by conjunctive progression[275] because interaction occurs between narrative and the other composite factors over the course of the process. UNCA Banshik municipal administrator Terry Peterson exemplifies the E-SCAN process.

Peterson came to the position of UNCA municipal administrator in Banshik, Kosovo with previously developed expertise in post-conflict environments. He was a retired U.S. Special Forces colonel in his 50s with military experience in Asia, fluent in Chinese, and possessed a PhD in Political Science.[276] Other municipal administrators recognized his expertise, and frequently asked for his advice on civil administration matters.[277] In addition, other actors in the environment recognized his expertise by calling on him for assistance. The UNMIK civilian police commander stated, "When I have information to send out, I contact Terry [Peterson]. He usually gets a hold of the correct people."[278] However, Peterson demonstrated that he could not rely on expertise alone.

Peterson seemingly recognized that he needed to refine his expertise and apply it to UN civil administration in Kosovo. Peterson professed, "There are no guidelines for municipal administrators. You make it up as you go along, which is what I like." Even though he had experience in similar situations, he appeared to exercise sensemaking to determine what he needed to do: "I don't think there's anybody out there who has ASKED [sic] the questions we're trying to answer. Who do I talk to?? [sic]I reckon my job is to walk out of here, turn over whatever I'm doing to the municipality, and this thing will run by itselfthe brief has not been written on how to do this."[279] In asking whom he needs to talk with to understand what is needed, Peterson demonstrates the relationship between sensemaking and connection.

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[275] Van de Ven, *Engaged Scholarship: A Guide for Organizational and Social Research*, 199.

[276] Holohan, "Webs Not Walls: International Organizations as Networks and Hierarchies in Kosovo," 77.

[277] Holohan, *Networks of Democracy: Lessons from Kosovo for Afghanistan, Iraq, and Beyond*, 52.

[278] Ibid., 57.

[279] Ibid., 1.

Peterson continually refined sensemaking by developing connection with diverse actors in the community. Holohan states that, "Half of each day, Terry Peterson was out in the municipality, attending meetings with other organizations, going into the field to check on Serb enclaves, going to town hall meetings, networking vigorously the whole time. 'It's not a 9 to 5 job,' he [Peterson] insisted."[280] Additionally, it was reported that "Terry will see anyone," and that he was constantly out engaging actors in the environment, including hitchhikers or anyone else "who might be helpful in the municipality."[281] Peterson was also able to leverage his connection with actors in the community towards accomplishing municipal objectives.

Peterson then leveraged his connection with the community to enable action. As noted by a Banshik Organization for Security and Cooperation in Europe (OSCE) representative, "I think his [Peterson's] team does a very good jobWe need the collaboration of the municipality. We can say he is the one who connected all the elements of local authority. He is the 'guider'."[282] Furthermore, UNCA Banshik and Peterson demonstrated the ability to turn connection with the community into action in guiding Albanian and Serbian collaboration in developing a solution to the conflict concerning the choice of flag to be flown over the Banshik municipal building.[283] The solution to this flag incident was for schoolchildren to develop a new flag for the municipality that embraced both Albanian and Serbian identity and encouraged future unity and collaboration. The way in which he dealt with the situation and the final product the municipality produced embodied Peterson's narrative.

Peterson's narrative told a story about a diverse collection of people trying to figure out how to improve the municipality. This narrative originated in the UN mandate's guidance to work with international organizations in conducting post-conflict stabilization. However, Peterson continued to refine the mandate, through sensemaking,

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[280] Holohan, *Networks of Democracy: Lessons from Kosovo for Afghanistan, Iraq, and Beyond*, 55.

[281] Ibid., 56.

[282] Ibid., 51.

[283] Ibid., 15–16.

into an expanded narrative that included local actors as part of an inter-organizational network. The incorporation of local actors was based on his recognition that, "They'd all been working here before 1989, when the Serbs fired them all. They had done this before. Nobody on my team [the UNCA team] has done this before."[284] Peterson further embodied the narrative by his continual engagement with the community—he lived within the municipality; he frequently visited ethnic enclaves; and he was available at all time—even in the middle of the night. One local village leader woke up Peterson to seek his assistance in dealing with a local dispute over a diverted waterpipe.[285] Thanks to his deep connection to the local community, Peterson was able to resolve this incident (action) by persuading multiple entities to set up a working group to address issues between ethnic communities and the police.[286] Action was possible thanks to Peterson's deep connections, which was reinforced with an enduring and inclusive narrative that enabled him to get things done (action).

The E-SCAN process model represents how UNCA Banshik was able to design their social network appropriately in accordance with their environment and purpose. Additional theory development and testing is required by future studies to create a generalizable theory of social network design for other contexts. However, this model presents a conceptual framework that may guide social network design within similar contexts, such as those that may be encountered by SOF personnel in development of the GSN.

This chapter built upon the results of systems framework[287] analysis, SNA, and activity analysis to develop composite factors. How these composite factors interacted with each other in the process of network design were then demonstrated. Finally, a proposed process model was presented that could aid in future social network development. The following chapter discusses implications of this study and offers

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[284] Holohan, *Networks of Democracy: Lessons from Kosovo for Afghanistan, Iraq, and Beyond*, 168.

[285] Ibid., 59.

[286] Ibid.

[287] Roberts, "Transforming Organizational Culture Lessons Learned from a Systems Perspective," 182.

recommendations for SOF personnel engaging in social network development in support of the GSN.

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# VII. CONCLUSION

## A. STUDY PURPOSE

This study asked the question: What conceptual framework should USSOCOM follow in developing the GSN? More specifically, how should SOF operators design social networks in support of the GSN?

## B. METHODOLOGY

A mixed-methods research design was undertaken to answer this question, which made it possible to explore the phenomena of network development from various perspectives. Two comparable cases were selected in which organizations sought to develop social networks to accomplish stability objectives in environmental conditions similar to those in which SOF often operate. The design of the social networks in each case was then examined through the lenses of the systems framework[288] and SNA to understand each network's environment, purpose, design, and results. In addition, activity analysis was undertaken to identify each network's actor activities and attributes. Informed by these analyses, a grounded theory was developed—a process model of network development. Table 29 summarizes the major methodological steps in this research design.

Table 29. Methodological Steps

| **Methodological Steps** | |
|---|---|
| 1. Case Selection | Selection of cases comparable to the GSN environment and purpose |
| 2. Case Comparison: Systems Framework | Qualitative examination of each case's inter-organizational networks and comparison between cases |
| 3. Case Comparison: Network Structure and Social Network Analysis | Quantitative examination of each cases inter-organizational networks and comparison between cases |
| 3a. Data Coding and Network Modeling | Structuring data to create a virtual model of a network |
| 3b. Data Analysis | Empirical examination of each network's structure |
| 4. Case Comparison: Design Continuum | Comparison of networks in terms of four dimensions of a design continuum |

[288] Roberts, "Transforming Organizational Culture Lessons Learned from a Systems Perspective."

| Methodological Steps | |
|---|---|
| 5. Case Comparison: Activity Analysis | Qualitatively analyzing networks in terms of the work activities and actor attributes and comparing them between cases |
| 5a. Data Coding | Structuring data into categories and concepts which help explain observed phenomena |
| 5b. Cross Case Analysis | Examination of differences between two cases to identify which might contribute to case results |
| 6. Theory Building | A methodological process by which data is interpreted qualitatively and quantitatively to build theory. |
| 6a. Concepts Emerge | Ongoing interpretation of data resulting in the identification of concepts that enable discussion and understanding of observed phenomena |
| 6b. Model Development | Compilation of Systems Framework, SNA, and Activity Analysis to create a process model of social network development to support the GSN. |

## C. STUDY CONTRIBUTIONS

A grounded theory approach was employed to develop a process model that guides social network development within inter-organizational networks (see Figure 21). Results from this activity analysis made it possible to identify five interrelated composite factors. Expertise is competence in a career field that serves as the entry-level requirement to function in a designated role within a network. Sensemaking is an ongoing, conscious effort to understand and predict someone's environment through the constant collection and interpretation of information.[289] Connection is the interaction between an actor and the individuals and organizations in their environment. Action is the ability to influence others to get things done and achieve specific results. Narrative "express[es] a sense of identity and belonging" within networks and "communicate[s] a sense of cause, purpose and mission."[290] Furthermore, narrative explains how networks accomplish their mission over time.[291] The authors propose that the composite factors relate to each other in a process model in which expertise is first required, then sensemaking gives means to experience, connections are made, and action is undertaken. Throughout the process model, actors simultaneously develop, make use of, and refine a

[289] Ancona, "Sensemaking: Framing and Acting in the Unknown," 4.

[290] Arquilla et al., *Networks and Netwars the Future of Terror, Crime, and Militancy*, 328.

[291] Ibid.

narrative. The overall process model is offered to explain how a network develops and evolves its design to be a good fit for its environment and purpose.

## D. IMPLICATIONS OF THE STUDY

This study demonstrated multiple methods for examining and understanding social networks useful for SOF personnel. The systems framework and social network analysis are useful in describing and developing social networks to reach their objectives. Activity analysis is useful in evaluating what WA and KSA are most relevant for SOF personnel in different contexts. Evaluations of this type could prepare follow-on personnel for pre-mission training. During operations, composite factors and associated WA and KSA could be referenced as a guides to assess member performance.

This study also offers the E-SCAN process to guide SOF personnel in developing and designing their social networks. Depending on the situation, network designs do vary, and the process model introduced herein offers guidance to assist SOF in developing their expertise, creating narratives, making connections, and taking action; all essential elements in building out the GSN.

## E. SUGGESTIONS FOR FUTURE STUDIES

The authors believe the research design and methodologies used in this study could serve as a foundation for additional analysis on networks, their development and design in other settings. The goal would be to build a more generalizable theory based on cases beyond the two analyzed in this study. More specifically, they suggest that future studies compare cases in high conflict or covert environments relevant to the GSN. Ideally, such studies could inform which designs might be appropriate for different contexts. It is to this goal this study is dedicated.

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# APPENDIX. WORK ACTIVITIES AND KNOWLEDGE, SKILLS AND ABILITIES

| | |
|---|---|
| Work Activities | General types of job behaviors occurring on multiple jobs. |
| Work Activities — Information Input | Where and how are the information and data gained that are needed to perform this job? |
| Monitor Processes, Materials, or Surroundings | Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems. |
| Inspecting Equipment, Structures, or Material | Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects. |
| Identifying Objects, Actions, and Events | Identifying information by categorizing, estimating, recognizing differences or similarities, and detecting changes in circumstances or events. |
| Getting Information | Observing, receiving, and otherwise obtaining information from all relevant sources. |
| Estimating the Quantifiable Characteristics of Products, Events | Estimating sizes, distances, and quantities; or determining time, costs, resources, or materials needed to perform a work activity. |
| Work Activities — Mental Processes | What processing, planning, problem-solving, decision-making, and innovating activities are performed with job-relevant information? |
| Updating and Using Relevant Knowledge | Keeping up-to-date technically and applying new knowledge to your job. |
| Thinking Creatively | Developing, designing, or creating new applications, ideas, relationships, systems, or products, including artistic contributions. |
| Scheduling Work and Activities | Scheduling events, programs, and activities, as well as the work of others. |
| Processing Information | Compiling, coding, categorizing, calculating, tabulating, auditing, or verifying information or data. |
| Organizing, Planning, and Prioritizing Work | Developing specific goals and plans to prioritize, organize, and accomplish your work. |
| Making Decisions and Solving Problems | Analyzing information and evaluating results to choose the best solution and solve problems. |
| Judging the Qualities of Things, Services, or People | Assessing the value, importance, or quality of things or people. |
| Evaluating Information to Determine Compliance with Standards | Using relevant information and individual judgment to determine whether events or processes comply with laws, regulations, or standards. |
| Developing Objectives and Strategies | Establishing long-range objectives and specifying the strategies and actions to achieve them. |
| Analyzing Data or Information | Identifying the underlying principles, reasons, or facts of information by breaking down information or data into separate parts. |
| Work Activities — Interacting With Others | What interactions with other persons or supervisory activities occur while performing this job? |
| Training and Teaching Others | Identifying the educational needs of others, developing formal educational or training programs or classes, and teaching or instructing others. |
| Staffing Organizational Units | Recruiting, interviewing, selecting, hiring, and promoting employees in an organization. |
| Selling or Influencing Others | Convincing others to buy merchandise/goods or to otherwise change their minds or actions. |
| Resolving Conflicts and Negotiating with Others | Handling complaints, settling disputes, and resolving grievances and conflicts, or otherwise negotiating with others. |
| Provide Consultation and Advice to Others | Providing guidance and expert advice to management or other groups on technical, systems-, or process-related topics. |
| Performing for or Working Directly with the Public | Performing for people or dealing directly with the public. This includes serving customers in restaurants and stores, and receiving clients or guests |
| Performing Administrative Activities | Performing day-to-day administrative tasks such as maintaining information files and processing paperwork. |
| Monitoring and Controlling Resources | Monitoring and controlling resources and overseeing the spending of money. |
| Interpreting the Meaning of Information for Others | Translating or explaining what information means and how it can be used. |
| Guiding, Directing, and Motivating Subordinates | Providing guidance and direction to subordinates, including setting performance standards and monitoring performance. |
| Establishing and Maintaining Interpersonal Relationships | Developing constructive and cooperative working relationships with others, and maintaining them over time. |
| Developing and Building Teams | Encouraging and building mutual trust, respect, and cooperation among team members. |
| Coordinating the Work and Activities of Others | Getting members of a group to work together to accomplish tasks. |
| Communicating with Supervisors, Peers, or Subordinates | Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person. |
| Communicating with Persons Outside Organization | Communicating with people outside the organization, representing the organization to customers, the public, government, and other external sources. This information can be exchanged in person, in writing, or by telephone or e-mail. |
| Coaching and Developing Others | Identifying the developmental needs of others and coaching, mentoring, or otherwise helping others to improve their knowledge or skills. |
| Assisting and Caring for Others | Providing personal assistance, medical attention, emotional support, or other personal care to others such as coworkers, customers, or patients. |
| Knowledge | Organized sets of principles and facts applying in general domains. |
| Administration and Management | Knowledge of business and management principles involved in strategic planning, resource allocation, human resources modeling, leadership technique, production methods, and coordination of people and resources. |
| Clerical | Knowledge of administrative and clerical procedures and systems such as word processing, managing files and records, stenography and transcription, designing forms, and other office procedures and terminology. |
| Communications and Media | Knowledge of media production, communication, and dissemination techniques and methods. This includes alternative ways to inform and entertain via written, oral, and visual media. |
| Computers and Electronics | Knowledge of circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming. |
| Customer and Personal Service | Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction. |
| Design | Knowledge of design techniques, tools, and principles involved in production of precision technical plans, blueprints, drawings, and models. |
| Economics and Accounting | Knowledge of economic and accounting principles and practices, the financial markets, banking and the analysis and reporting of financial data. |
| Education and Training | Knowledge of principles and methods for curriculum and training design, teaching and instruction for individuals and groups, and the measurement of training effects |
| Foreign Language | Knowledge of the structure and content of a foreign (non-English) language including the meaning and spelling of words, rules of composition and grammar, and pronunciation. |
| History and Archeology | Knowledge of historical events and their causes, indicators, and effects on civilizations and cultures. |
| Law and Government | Knowledge of laws, legal codes, court procedures, precedents, government regulations, executive orders, agency rules, and the democratic political process. |
| Personnel and Human Resources | Knowledge of principles and procedures for personnel recruitment, selection, training, compensation and benefits, labor relations and negotiation, and personnel information systems. |
| Philosophy and Theology | Knowledge of different philosophical systems and religions. This includes their basic principles, values, ethics, ways of thinking, customs, practices, and their impact on human culture. |

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| | | Psychology | Knowledge of human behavior and performance; individual differences in ability, personality, and interests; learning and motivation; psychological research methods; and the assessment and treatment of behavioral and affective disorders. |
| | | Public Safety and Security | Knowledge of relevant equipment, policies, procedures, and strategies to promote effective local, state, or national security operations for the protection of people, data, property, and institutions. |
| | | Sales and Marketing | Knowledge of principles and methods for showing, promoting, and selling products or services. This includes marketing strategy and tactics, product demonstration, sales techniques, and sales control systems. |
| | | Sociology and Anthropology | Knowledge of group behavior and dynamics, societal trends and influences, human migrations, ethnicity, cultures and their history and origins. |
| | | Telecommunications | Knowledge of transmission, broadcasting, switching, control, and operation of telecommunications systems. |
| Skills | | | Developed capacities that facilitate learning or the more rapid acquisition of knowledge |
| | Skills — Basic Skills | | Developed capacities that facilitate learning or the more rapid acquisition of knowledge |
| | | Critical Thinking | Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems. |
| | | Active Learning | Understanding the implications of new information for both current and future problem-solving and decision-making. |
| | | Active Listening | Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times. |
| | | Learning Strategies | Selecting and using training/instructional methods and procedures appropriate for the situation when learning or teaching new things. |
| | | Monitoring | Monitoring/Assessing performance of yourself, other individuals, or organizations to make improvements or take corrective action. |
| | | Speaking | Talking to others to convey information effectively. |
| | Skills — Complex Problem Solving Skills | | Developed capacities used to solve novel, ill-defined problems in complex, real-world settings |
| | | Complex Problem Solving | Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions. |
| | Skills — Resource Management Skills | | Developed capacities used to allocate resources efficiently |
| | | Management of Financial Resources | Determining how money will be spent to get the work done, and accounting for these expenditures. |
| | | Management of Material Resources | Obtaining and seeing to the appropriate use of equipment, facilities, and materials needed to do certain work. |
| | | Management of Personnel Resources | Motivating, developing, and directing people as they work, identifying the best people for the job. |
| | | Time Management | Managing one's own time and the time of others. |
| | Skills — Social Skills | | Developed capacities used to work with people to achieve goals. Also used for overall coding of sections pertaining to social "embededness". |
| | | Coordination | Adjusting actions in relation to others' actions. |
| | | Instructing | Teaching others how to do something. |
| | | Negotiation | Bringing others together and trying to reconcile differences. |
| | | Persuasion | Persuading others to change their minds or behavior. |
| | | Service Orientation | Actively looking for ways to help people. |
| | | Social Perceptiveness | Being aware of others' reactions and understanding why they react as they do. |
| | Skills — Systems Skills | | Developed capacities used to understand, monitor, and improve socio-technical systems |
| | | Judgment and Decision Making | Considering the relative costs and benefits of potential actions to choose the most appropriate one.<br>We're using this to capture personal courage and initiative. |
| | | Systems Evaluation | Identifying measures or indicators of system performance and the actions needed to improve or correct performance, relative to the goals of the system. |
| | | Systems Analysis | Determining how a system should work and how changes in conditions, operations, and the environment will affect outcomes. |
| Abilities | | | Enduring attributes of the individual that influence performance. |
| | Abilities — Cognitive Abilities | | Abilities that influence the acquisition and application of knowledge in problem solving |
| | | Information Ordering | The ability to arrange things or actions in a certain order or pattern according to a specific rule or set of rules (e.g., patterns of numbers, letters, words, pictures, mathematical operations). |
| | | Category Flexibility | The ability to generate or use different sets of rules for combining or grouping things in different ways. |
| | | Deductive Reasoning | The ability to apply general rules to specific problems to produce answers that make sense. |
| | | Fluency of Ideas | The ability to come up with a number of ideas about a topic (the number of ideas is important, not their quality, correctness, or creativity). |
| | | Inductive Reasoning | The ability to combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events). |
| | | Oral Expression | The ability to communicate information and ideas in speaking so others will understand. |
| | | Originality | The ability to come up with unusual or clever ideas about a given topic or situation, or to develop creative ways to solve a problem. |
| | | Problem Sensitivity | The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem. |
| | | Selective Attention | The ability to concentrate on a task over a period of time without being distracted. |
| | | Spatial Orientation | The ability to know your location in relation to the environment or to know where other objects are in relation to you. |
| | | Speed of Closure | The ability to quickly make sense of, combine, and organize information into meaningful patterns. |
| | | Time Sharing | The ability to shift back and forth between two or more activities or sources of information (such as speech, sounds, touch, or other sources). |
| | | Visualization | The ability to imagine how something will look after it is moved around or when its parts are moved or rearranged. |
| | | Written Comprehension | The ability to read and understand information and ideas presented in writing. |
| | | Written Expression | The ability to communicate information and ideas in writing so others will understand. |

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